Lawn Tennis Lessons for Beginners

By J.Parmhy Paret





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LAWN TENNIS LESSONS FOR BEGINNERS



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READY FOR THE NEXT STROKE This position and the method of balancing the racket are the foundation and corner-stone of all good play.

LAWN TENNIS

LESSONS FOR BEGINNERS

BY

J. PARMLY PARET

AUTHOR OF "METHODS AND PLAYERS OF MODERN LAWN TENNIS"

ILLUSTRATED With Photographs of the Author in Action

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INTRODUCTION

B EGINNERS who take up this little book to learn to play lawn tennis may have no knowledge at all of the game, and they are entitled to look for something more than the bare technique of the play.

For those who know nothing of the game, therefore, it will be necessary to furnish a brief introduction. The rules themselves, the measurements of the court and such other details will be found in the last pages of this volume, but these do not actually tell one how to play the game.

Briefly then, lawn tennis is played by two, three or four persons divided into teams, with one or two on each side of the net which separates the contestants. The play is called "singles" if only one player appears on each side and "doubles" if two are on each side. Occasionally two players oppose one, and then the lines of the court for singles are used on the side with one player and the wider court for doubles is used by the side with two players.

The ball is put into play by the server, who is selected by lot, generally by the toss of a racket, and must be struck over the net and into the opponent's court; the opponent is then required to return or play the ball back again to the other side, striking it only on the first bound. After this first return, the players must play the ball alternately from each side until the point is won or lost, all being permitted to hit it either on the volley (which is before it touches the ground) or on the first bound, as they choose.

Partners in doubles must alternate points in receiving the service, and alternate games in serving, but in all other strokes, either may play the ball as preferred. One player of a team may make all returns except the first, if it is possible for him to reach the ball every time.

Either side loses a point if it fails to hit the ball before it has struck the ground the second time; if it fails to knock the ball over the net, or if it plays the ball outside of the opponent's courtlines, which are marked on the ground.

The server must serve alternately from the right and left sides of his court, from behind the baseline, into the service-court (which is a smaller rectangle outlined on the ground) on the other side diagonally opposite him.

He is allowed two chances to place the ball inside the service-court of the antagonist. If he fails in his first attempt, it is called a "fault," and if two faults are made in succession, the point is lost, the next point being started with the server at the opposite side of the court. The server continues from right and left courts, serving until the game has been won, and then the service is made by the other side until the next game is won, and so on alternately until the set is finished.

The first point won counts "fifteen" for the side that wins it, the second brings his score up to "thirty," the third to "forty" and the fourth ends the game. Either side scores a game when it wins four points, except that when each side has won three points at the same time, the score is called "deuce" and from that point the game can only be won, no matter how long it takes to finish it, by one side scoring two points more than the other.

The server's score is always called first and the method of scoring is as follows: *Fifteen-love*, "love" indicating no points won; *fifteen-all*, when each side has won one point; *fifteen-thirty*, when the server has won one point and the other side two, or *thirty-fifteen*, when the server has won two points and the other side one; *thirty-all*, each side having won two points; *forty-thirty* or *thirty-forty*, according to which side is ahead; then *deuce*, when each side has won three points; *vantage-in* or *vantage-out*, indicating that the server (in) or the other side (out) has won the odd stroke from deuce, but not the game.

From deuce, the score often oscillates back and

forth for some time in a close game. It runs perhaps to deuce, vantage-in, deuce, vantage-out, deuce, vantage-out, deuce, vantage-in and finally, game. Each time the vantage is lost again by the winner, the score returns to deuce, and the "in" or "out" indicates whether the server holds the advantage or his opponent.

The games are scored like the points, but by simple numerals as follows: One-love, one-all, onetwo, two-all, three-two, four-two, five-two, fivethree, five-four, and five-all or deuce in the set, which is played out just as the points of the game, either side requiring an advantage of two games over the adversary to win the set.

The set score, however, continues to run by numerals, not with vantage-in or vantage-out, as in the point score. For instance, from five-all it mounts up perhaps to six-five, six-all, six-seven, seven-all, seven-eight, eight-all, nine-eight, teneight or set.

Generally two out of three sets constitute a match, but in finals of tournaments and other important matches, sometimes three out of five sets are played.

The server must stand behind the base-line to hit the ball, and must throw the ball up and strike it in the air, while the opponent of the server must let the first ball bound before he strikes it. Other than these two restrictions, the players are privileged to volley any ball or play it on the first bound as they choose.

They may stand in any position they please in their court and play the ball into any part of the opponent's court, the requirements being only that it must always go over the net and inside of the lines marking the boundaries of the opposite court to be a good return.

A ball that touches the net and then goes over is a good return, except on the service, when it is called a "let" ball if it drops in the proper court, and counts for nothing. The server is allowed to serve a let ball over again without counting a fault.

A beginner in tennis, after he has studied the rudimentary strokes as I have tried to describe them in the following chapters, should have gained a good groundwork in the game. Given that, constant practice is the greatest help he can possibly have in building up a good ability to play tennis.

Professional coaching or frequent practice with an experienced player who has acquired good form will work wonders, of course, and every day's progress will open new vistas of delight in a game that seems to be endless in its combinations of manual skill, keen headwork and healthy physical exercise.

For those who have not the advantage of per-

Introduction

sonal coaching, books furnish the next best guide, and it is hoped that these chapters will insure a good start in the right direction. For those who would study the game still further in its wonderful variety and learn more of the finer points of play, I could not do better than to recommend that they read "Methods and Players of Modern Lawn Tennis," a book I brought out a year ago.

This carries the student and player from the elementary principles covered in these pages to the last word on the game, discussing every fine point of technique from the standpoint of the expert as well as the average player. The instantaneous snap-shots of expert tournament players making the different strokes also cannot fail to be helpful. LAWN TENNIS LESSONS FOR BEGINNERS

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LAWN TENNIS LESSONS FOR BEGINNERS

I

SELECTING A RACKET, CLOTHES, ETC.

G OOD work requires good tools, and the mastery of any sport requires the aid of implements that will help the player, not hamper him. With cheap "composition" balls, the billiard player cannot execute many of the difficult shots of that game; with poor golf clubs, much of the chance to make fine strokes disappears, and in lawn tennis it is the same thing. With "dead" balls and nets that sag in the center, one cannot expect to enjoy the game properly.

But the most important of these implements in tennis is the racket, and too much care cannot be used in selecting one even for the novice who is just learning to play the strokes. It is like throwing one's money away to buy the cheap rackets made for children which are so often seen in the stores. It is poor economy, too, for a better one is generally cheaper in the long run. The cheap frames soon warp out of shape and the

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so-called "oriental" gut, which is not real "catgut" at all, but a manufactured substitute for the real article, lacks elasticity and will not hold its "life" long.

Do not select too heavy a racket. For a beginner, $13\frac{1}{2}$ ounces is generally the best weight, although small boys and women can often use one of 13 ounces better, and a full-grown man will not find 14 ounces too heavy. Before it is bought, the new racket should be tested to see if it is well balanced, and a simple test for one who is not expert is to balance the racket across the first finger of the left hand. (See plate 2).

The finger should rest about the middle of the triangular throat-piece, if the racket is well balanced, and generally between the two screws that go through from the side to strengthen the frame. If the head sinks quickly when it rests on the finger here, the racket is probably "top-heavy" and will be hard to swing; while, on the contrary, if the handle sinks fast at this balance, the racket will probably lack driving power.

For those who have had more experience in handling tennis rackets, a better method for testing the balance is to take the racket under consideration by the extreme end, holding it as though about to make a stroke. Let the racket sag down sharply against the bend of the wrist and bring it up into striking position again; swing



PLATE 1. TESTING THE SIZE OF THE HANDLE Gripped at the end, the thumb should overlap the middle finger by at least an inch in selecting a racket with a handle of the right size.

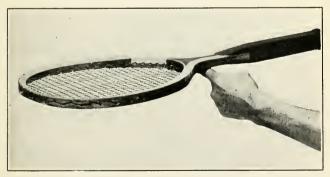


PLATE 2. TESTING THE BALANCE OF THE RACKET A good racket should balance evenly on the finger, when placed at about the middle of the throat-piece.

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it from side to side quickly, changing direction to get the "feel" of it.

Swing through a few times at an imaginary ball, checking the racket once or twice suddenly, while still holding it by the extreme end. If the new racket drags heavily against the wrist and seems to require a special effort, more than usual, to bring it into the striking position, look out for it. It is more than likely to be heavy in the head, and will be unsatisfactory for volleying. Try another and another until one is found that is better suited to the strength of your playing-arm and wrist.

Rackets vary a good deal in balance, and it is more than likely that another of the same make, possibly even of the same weight, may be found satisfactory. Look out that the head is not too light, however, for the racket that seems easiest to swing is often not the best, for a light-headed racket will not give as much power in the groundstrokes as one that is balanced higher up.

The handle of the new racket should not be too large. Experts occasionally prefer large handles, but for beginners or young players, small handles are always best. Many experienced tournament players also use small handles. The circumference of the handle at its lower end (not including the leather guard or "button" at the extreme end) should be from 5 to $5\frac{1}{4}$ inches. The

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size of the handle really should be governed by the size of the player's hand, and $5^{1}/_{8}$ inches will generally be found best suited for a hand that wears a number eight glove.

It is not always easy to measure the circumference of a racket handle as you stand in a dealer's store waiting to buy, but the simplest method is to grip the racket handle tight at its bottom and overlap the fingers on the far side. The handle should be small enough to allow the thumb and middle finger to overlap a full inch. (See plate 1.)

Among tournament players it is not uncommon to wrap the handle of the racket with adhesive plaster or electric tape. This is intended to keep the racket from slipping in the hand, but I have always found it much better to keep the hand dry and depend on the natural cedar wood, which is generally roughened or "combed" by the makers to keep the racket from slipping. Later on, when the beginner has improved, it is very easy to increase the size of the handle of his racket, if too small, by wrapping the handle in this way. On the other hand, cutting down the handle, as is sometimes tried for handles that are too large, frequently destroys the racket's balance.

The weight of the racket and the size of the handle have a good deal to do with a beginner's success at the game. It is difficult enough at best to learn the new strokes, and the lighter the racket and the smaller the handle the easier will many of these difficulties be overcome. Most important of all, the small handle affords a tighter and firmer grip.

Extremely thin strings will not wear long on dirt courts, and the very heavy variety lacks resiliency, so a medium-sized string is the best for general use. Avoid fancy styles of stringing a racket as a rule, although there is one new variety on the market this spring that shows an entirely new principle by drawing all the strings diagonally across the head with a diamond-shaped mesh, from which it has become known as the "Diamond Mesh" racket.

This method does away entirely with the short strings that tend to deaden the playing surface of the older style and gives much more elasticity to the racket. The absence of short strings also increases the playing surface available in the center. Beginners find this a great advantage as they miss fewer strokes by hitting the ball off the center, and it also gives them more speed before they learn to make a full swing at the ball. For all cut strokes, this style has a great advantage over the old method of stringing. The extra resiliency also reduces the shock of the constant blows against the ball and lessens the fatigue in the playingarm.

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A good racket should be kept dry at all times and protected against the dampness not only of the weather but from perspiration from playing clothes. Extreme heat also will warp the frame. A waterproof case helps in this regard wonderfully, and a screw-press also serves to prolong the life of the racket if it is kept under pressure when not in use.

Avoid tight clothes for tennis. Flannels are better than cotton duck or cheviot for trousers and shirts. Strange as it may seem, they are cooler too, for they seem to absorb the perspiration and keep you cool, although heavier than cotton materials.

The shirt should be open at the throat and loose, and have short sleeves, better cut off than turned up or rolled, and not reaching below the elbow in any case. Trousers should be turned up at the bottom well clear of the ground, and have many closely-spaced belt straps, sewed on with extra strength, as a great strain comes on the belt.

Last but not least, look out for good foot-gear. There is some difference of opinion on the best shoes to select for tennis, but personally I prefer the thin "sneakers," those soft rubber-soled canvas slippers that are so light you scarcely feel you have any shoes on your feet when in fast play. They should fit tight, too. Let nobody get you to wear them loose, for a loose tennis shoe is worse

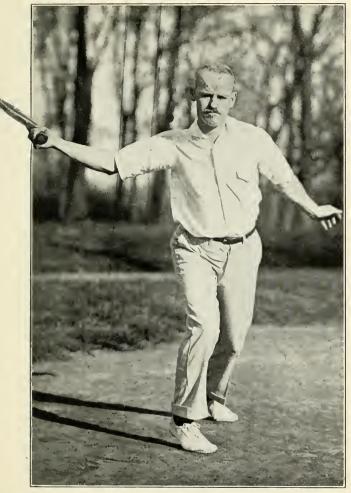


PLATE 3. PROPER CLOTHES FOR THE GAME

Short sleeves, open-necked shirt, light rubber-soled slippers, and flannel trousers are the best. (This shows the end of a hard backhand stroke, described later on.) than a tight one, and will wear blisters on the foot much faster than if it fitted snugly.

It is a great mistake to practice tennis under poor conditions. That is, with courts that afford an uneven bound, with balls that are ripped, or "dead" or light in weight, with court-lines marked crooked or with nets that sag in the middle so as to give a false height to play over. Worst of all, perhaps, is it to practice on a court with the lines marked out at wrong distances, for the player will in this way soon become confused by these inconsistencies, and knock the balls out of court when he goes back to a court that is properly measured.

To sum up the points for the beginner to remember in making his first preparations, it is well to keep the following in mind:

Buy a good racket when you do get one; the cheap varieties found in some of the stores are really only toys.

Select a light racket, not a heavy one.

Prefer a small handle to a large one, and see that the thumb can overlap the middle finger at least an inch in gripping the end.

Choose one with the best driving power and avoid the extremely thin gut stringing.

Keep your racket dry at all times, in a waterproof case, and if possible in a press when not in use.

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Avoid tight clothes, except shoes, which should never be loose.

Never play with "dead" balls, a low net or on a court with lines marked out for the wrong distances.

THE GRIP OF THE RACKET

THE beginner in lawn tennis should center all attention at the start on the first principles of the game, and of these the grip of the racket is certainly the first to be considered and perhaps the most important of all. In no other sport is it so easy to be led into bad habits of play that become daily more confirmed, than in tennis; and in no other will those habits so severely handicap, if not ruin, the hopes of the novice to acquire ultimate skill.

Now, one cannot say that all other styles of holding the racket than those recommended here will fail to produce good results, because there have been instances of really good players who have held their rackets in unorthodox ways, but it can be stated with confidence that certain principles of accepted good form in this matter will produce the best results in the hands of nine players out of every ten. It would be foolish for any aspiring young player to take the risk of a bad style, in the hope that he might by some chance develop into the exceptional tenth by using an unorthodox style.

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10 Lawn Tennis Lessons for Beginners

If the beginner will follow the general rules laid down in this chapter he will have started right in one of the most important details of the game, with greatly improved prospects of ultimate skill. For the player using other grips, who is in the early stages of development, it will in, all probability improve his play to shift to those recommended here, if bad habits have not already become too strongly fixed in his methods.

First and most important of all, the racket *must* be held by the extreme end. This is the hardest thing to impress on the beginner's mind, because he finds it more difficult to swing the racket at first with the full length of the handle, and he is very reluctant to do this, when the shorter grip gives him a quicker control and permits him to hit the ball with a jerky half swing. At first the beginner swings his racket only a foot or two in striking, making more of a push than a blow of his stroke, and this lets him delay striking until the last second, and the stroke seems easier to be made in this way.

But the error of this method is that it depends on the strength of the player's arm for success, and this is the first great fallacy by which the novice is led into bad habits of play. The arm's strength has little to do with the good tennis stroke; it depends almost entirely on the momentum of the racket, and at the moment of impact little or no strength is exerted by the arm.

As in golf, the player "presses" as soon as he uses his muscles too much. The racket and the golf club really do the work required, and it is only necessary for the player to start them in the right direction, increase their momentum and speed by the swing of the body and arm until they reach the maximum when the ball is hit. He need only guide the racket or club, rather than push it along.

The length of the racket is increased by every inch of the handle that is extended beyond the gripping hand, so that its leverage and the power of its swing under momentum increase fast with this extension. As it is very difficult to shift the grip after first habits are formed, it is doubly important to begin with the long grip, even though it seems more difficult at first.

The reluctance of most beginners to grip the handle by the extreme end comes from the difficulty of making a successful stroke with only a half swing and a long grip. The novice hesitates to make a full swing because he cannot calculate at first so far ahead where the ball is going to bound and how high and how deep it will jump up in front of him to be hit. He fears to draw his racket far back to make the stroke because he expects to make only a half swing.

The leather "button" or binding at the end of

the handle helps to prevent the racket from slipping from the hand, and also warns the player, without his needing to look down, when his hand has reached the end of the handle. This leather end should rest against the fleshy part of the hand at the base of the thumb, and, if the full-length grip is cultivated, it will rest very comfortably there while in play.

The second cardinal rule of the grip is to hold the racket firmly in the hand. A loose grip is one of the worst errors possible. It permits the racket to turn in the hand when the ball is hit slightly off the center of the racket's strings, and this is a common occurrence even among experienced players, and an almost constant occurrence among poor players.

The tight grip also prevents the giving of the racket when the impact with the ball is reached, and if the racket does relax, though it be ever so little, much of the power of the stroke will be lost. Now, the player's hand will tire at first under this constant pressure, and even with some experience, it is no easy task to grip a wooden handle tensely for hours at a stretch. But this strain can be eased up a good deal, if the player will only remember to relax his hold and rest the muscles of his hand between the rallies of play.

But from the moment the swing at the ball begins, and even just before it when you are anticipating the next play, the racket must be held firmly; and when the actual forward motion begins, then the tightness of the grip should be increased, so that at the moment of impact there is no possible chance for the racket to twist or give in the hand as the ball is hit.

With few exceptions, the grip should bring the racket into position to meet the ball, facing as squarely as possible in the direction you want the ball to go, with the arm and wrist in the positions that give them the greatest freedom and the most power.

A good test to prove that this has been done, that the grip is right, is to hold the racket as it will meet the ball, and see if the muscles and joints of the arm and wrist are in their most effective position. If not, try again with a different grip until you do get this result, and then swing the racket through at an imaginary ball a hundred times until it is certain that this is the best as well as the most convenient position. If it harmonizes at all, even though slightly off in detail, with the pictures shown here to illustrate the correct grip, then adopt it and use it.

Ease and convenience are great factors in tennis, and it is far better to moderate slightly the details recommended than to force yourself to use a strained position constantly. But this must not be considered a license to adopt any radically

different grips, and still believe you are following the orthodox methods required by good form.

As a matter of fact, there are three distinct grips used, that for the forehand strokes, that for the backhand strokes and the grip used for the overhead strokes. There are also variations of each of these, the American twist services requiring different grips from the more familiar deliveries of the server; and the volleys varying slightly from the ground-strokes.

For the forehand strokes, the racket should be held as shown in the illustration (plate 4 A), with the leather at the end of the handle resting against the fleshy part of the hand near the wrist, the fingers spread out somewhat along the handle, and the index finger distinctly separated from the rest. The thumb should be wrapped around the handle firmly and overlap the middle finger or rest between the index and middle fingers. Care should be taken to see that the face of the racket is in line with the finger nails. This grip gives the greatest freedom to the wrist and offers the best form in play.

For the backhand strokes, there is more latitude. The swing of the arm is in the opposite direction and this stroke is more of a pull than a push that is, the force that controls the racket is more ahead than behind it, as in forehand strokes.



PLATE 4. CORRECT WAYS TO GRIP THE RACKET(A) Forehand grip. (B) Backhand with thumb up the handle.(C) Backhand with thumb around the handle.

Here the fingers must be further around the handle with the middle knuckles showing the way in which the ball is to travel. The illustration (plate 4 B) shows this grip better than words can describe it.

But the fingers do not overlap the thumb, as in the forehand grip. On the contrary, the thumb is stretched along back of the handle as a brace or prop to stiffen its resistance to the impact of the ball. This position leaves a gap between the thumb and the fingers, so that there is a tendency to let the racket turn in the grasp when a ball is struck off the center. It is doubly important in these backhand strokes therefore to grip the handle very tightly.

There are some variations in the use of the thumb in backhand play. Many of the English experts, as well as some Americans who have copied them, wrap their thumbs around the handle either diagonally or as in the forehand stroke, but the absence of direct support for the racket forces a change in the position of the playing-arm, which weakens the stroke more than the wrapped grip of the thumb helps it. (See plate 4 C.)

For the regular service, as well as for overhead volleying and smashing, the grip is almost the same as for the forehand strokes, except that the head of the racket is turned slightly more away from the direction the ball is to travel. As will be shown later on in the chapter on that stroke,

the service is made with more of a glancing blow than the ground-strokes.

One great difficulty that must be overcome by beginners is the necessary change of the grip when shifting from a forehand to a backhand stroke, or vice versa. At first this seems to be quite an undertaking, and it often requires too much of the beginner's attention that should all be devoted to hitting the ball. After each stroke, however, it is best to bring the racket forward to a position balanced in front of the body so that it can be easily shifted in either direction for the next stroke. (See frontispiece.) When waiting for the next play, it is well to let the "splice" of the racket rest in the left hand, while the end of the handle is still gripped in the right.

If this habit is formed, the change from one grip to another becomes very simple and requires practically none of the player's attention. After a little practice, it becomes almost automatic and can be made without either looking at the racket or thinking of the shift. The left hand steadies the racket while the right releases the grip and finds the new grasp with little difficulty.

The points most important for the beginner to keep in mind regarding the grip of the racket might be summarized as follows:

The racket must be held by the extreme end; this is a cardinal rule of the game. The leather "button" or guard at the end of the handle should rest against the fleshy part of the hand.

Keep a firm grip on the racket; a loose hold ruins many strokes.

For the forehand stroke, the thumb should overlap the middle finger.

For the backhand stroke, the thumb should be stretched along straight up the back of the handle as a support.

For the forehand stroke, the finger nails should face the direction of the stroke; for the backhand stroke, the middle knuckles. ш

FIRST PRINCIPLES OF GOOD FORM

GOD form in any sport is one of those elusive qualities that are hard to describe, and often harder to adopt. In tennis this is so as in other sports and other activities. Briefly defined, good form, so far anyway as it applies to lawn tennis, may be said to be the manner and method of playing which will produce in the hands of the average man the greatest percentage of success. It is that method of using the body, the arms and legs, which gives the greatest freedom and the best ability to make successful strokes.

There have been many players and some experts who have won high honors despite bad form, and too often have these men been followed as models simply because it was thought that their success vindicated their methods. But this is an empty fallacy, for such a player may have certain mental or physical qualities that are entirely foreign to the average player. Abnormal length of arms or legs may affect his manner of swinging his racket or the position he assumes during play. The same methods adopted by a player of a different mould would not give the same results.

First and most important of the rules that apply to all play in good form is to keep the eyes constantly on the ball while in play. There are exceptions to this rule, of course, as it is necessary to look up occasionally to see where the opponent is, and to glance often at the court and its boundary lines. Expert players also use a fine *finesse* in the higher art of expert play, in which they look away from the ball just before they hit it, in order to more accurately direct a placed shot. But this kind of technique is not for beginners, and should be put aside entirely until the player is far along on the road to expert skill.

Only by watching the ball constantly will it be possible to calculate the angle of its flight, the distance it will travel before striking and how high and how far it will bound before you must hit it. The white ball in the sharp sunlight offers a fine mark and the eye can be focussed on it no matter how fast it may fly through the air. Whether it is coming or going, so long as the play continues, it must be followed constantly to play well.

The playing position should be somewhat crouching, with bent knees, shoulders thrown well forward and the weight carried up on the toes. (See frontispiece.) Ready to spring in any direction on the instant, this position helps the player wonderfully to reach the return that may be placed in some other part of the court. He should always be ready to move quickly, and even when the ball comes directly toward him, he should jump forward in striking. The greatest power in making any stroke comes from leaning to meet the ball, which brings all the player's weight into the blow.

The power of a tennis stroke depends almost entirely on the momentum of the racket and this is gained largely by the swing that adds the weight of the body to the force. Little if any muscle is required to make a good stroke. The well-timed swing of the arm and racket, accelerated by body swing, and the all-important "follow-through" are what do the work.

Not only is the swing of the body before the ball is hit needed to produce a good stroke, but it should be carried far beyond that point, following the ball long after it has left the racket. This "follow-through," so much talked of in golf, is equally important in tennis, and the fastest strokes of expert players are the result of perfect timing to secure the maximum momentum in the racket, added to a full follow-through of the body-weight.

The more directly every motion can be kept in line with the flight intended for the ball, the



PLATE 5. FREE POSITION FOR STRIKING Note the line of the feet, the turned position of the body, and the angle and freedom of the striking-arm.

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more accurate will be the aim of the player and the more power there will be in the stroke. Side motions of the racket and arm are almost invariably lost power, and cause poor direction as well. The player who swings his racket across the path of the ball, rather than directly after it in the same plane, is generally wild in his returns and finds it difficult to control the ball as he should.

One cardinal point that all beginners should write down in red letters and keep always in their minds, is the necessity of keeping away from the ball sidewise, of giving it plenty of room. The late H. S. Mahony, a former champion of All-England and one of the greatest tacticians in the history of the game, used to say that whenever he was playing badly he knew he was too close to the ball; and the truth of this has long been realized by other authorities.

It is practically impossible to make a good stroke when the ball is played from close to the body. One should keep away from it in every direction. As it approaches, keep further back than you think necessary, and then jump forward to meet it, which gives the much-needed bodyweight in the stroke. Sidewise, also, never let the ball approach directly toward your body. Rather keep it off to one side and lean out to meet it, again using the balance of the body to add

weight to the stroke. When a ball comes straight at you, step to one side or the other or your stroke will be ruined.

The elbow becomes bent and cramped when the ball gets in close to the player's body, and there is little or no power in a stroke made from such a position. If the ball bounds to the right or left of what was expected, the difference can be taken up by the bend of the elbow if well extended, but when cramped, all chance to correct the error in calculating the ball's flight is lost.

The idle arm should be used as a counterbalance. A glance at the illustrations will explain what is meant by this. With it extended far out in the opposite direction from that carrying the racket, the balance can be preserved much better, and it also permits the player to lean farther out to meet the ball and to use his body-weight in the stroke.

Watch a man run and you will see that whenever his right leg goes forward, his right arm swings back, and the same with the left. Without the arms swinging as counter-balances, it would not be possible for him to run nearly so fast, as the efforts of his legs would throw him off his balance with no help from the arm on the opposite side. It is the same thing in tennis, and the value of the idle arm as a counter-balance in fast play cannot be over-estimated. In all ground-strokes, where a full swing is called for, and in most others, the player should turn his side toward the net when he makes the stroke. This gives a free swing for the racket and brings the feet into line so that the weight can be shifted from one to the other during the stroke to increase the body swing that is so necessary for speed. In stepping into this position, the player moves forward with one foot or backward with the other, according to whether the next ball is coming short or deep into his court.

Except while making a few volleys at the net, it is best to loosen up the joints so that the swing of the racket is not jerky. A pliable wrist is a great help, and the "flick" of the racket just before the ball is hit, by which experts add so much to their speed, all comes from the wrist. The more the whole arm from shoulder to wrist can be treated like a whip-lash, the smoother and more powerful will be the stroke. The arm acts like a jointed rod, but the smoother the joints work, the better will be the stroke.

Another important point for the beginner to keep in mind is the necessity of preparing for the next stroke the instant the ball has been hit. Don't wait to see where your return is going before you start, but begin instantly to recover your balance and move to the best position for the next stroke. Anticipation of this kind is one

of the strongest points in which an experienced player excels the novice.

Summing up the vital principles of good form, I would warn the beginner to keep these rules always before him:

Keep your eyes on the ball all the time; watch it from the instant play begins until each rally ends.

Cultivate a crouching position with the weight on the toes and bent knees, and balanced well forward ready to spring.

Swing the racket freely and depend on its momentum, not on strength, for speed.

Follow through with the weight of the body and keep all motions as much as possible in line with the ball's flight.

Keep away from the ball; give it plenty of room sidewise, bending out and forward to meet it, and avoid the cramped elbow that comes from playing close to the body.

Loosen up the joints and make your stroke like the lash of a whip.

Get ready for the next play the instant you finish a stroke; try to anticipate your opponent's next return.

IV

Errors of Beginners in Positions and Grips

THE most common error from which all beginners suffer is that of holding the racket with too short a grip, and from this fatal weakness spring many other troubles that the novice finds difficult to overcome. Bad habits of play follow close in the wake of the short grip, and a host of stumbling-blocks will disappear if the beginner starts right in this matter. (See plate 7.)

The short swing that ruins so many tennis strokes is generally due to a short grip. With the handle fully extended the player must swing well back and give the racket plenty of momentum before hitting, or the ball will not go as he wants it. There is too much leverage against the arm with a full handle for a half swing to get any power.

The short grip also brings the ball too close to the body and a cramped elbow is the inevitable result. The lack of freedom of this position is a great handicap. With the elbow close to the body, there is often no chance to make up for any irregularity in the ball's bound. It comes in

eloser to the body than expected and the cramped elbow allows no chance for the player to correct his swing. (See plate 9.)

The bad position that always follows the short grip also weakens the swing as well as shortening it. No force can be transmitted through a crooked rod as effectively as through a straight one, and the muscles do not work so well around corners either.

So we see that the short grip weakens the swing, shortens it, and brings a cramped elbow with the ball too close to the body, while all of these faults will disappear if the beginner will take a long grip on his racket at the very outset and gradually build up his other habits to the correct hold.

Another constant source of trouble for the beginner is a loose grip on the racket. At first the novice grasps the handle feverishly, almost desperately, and his hand tires quickly as a result of this needless waste of energy. But the other extreme is even worse, and when the player begins to relax his hold materially, fresh troubles creep in.

A racket that gives slightly with the impact will never drive a fast ball, as the snap of the stroke will be lost. But it is even worse when the ball hits the strings slightly off the center of the frame, which happens frequently, for then



PLATE 6. WRONG USE OF THE FIRST FINGER

The first finger should never be extended up the handle as shown here. In golf putting and sometimes in croquet, it is permissible, but never in tennis.



PLATE 7. SHORT GRIP ON THE RACKET

This is the worst of all errors of the beginner, and yet perhaps the most prevalent one. A short grip like this ruins any stroke.

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the racket is almost sure to turn in the grasp if the hold is not tight. A firm grip of the handle is necessary, but it will do no good to squeeze the wood until you dent it.

The first finger should never be used straight up the handle as a prop or support when the stroke is made. It is not uncommon in croquet to see the mallet guided like this, and I know that some golfers use their first fingers in this way while putting. In tennis, however, it is quite impossible, and the finger will be more in the way than helpful. (See plate 6.)

It is difficult for the beginner to realize at first that he must never let the ball come straight at him. Whether playing a ground-stroke or a volley it is necessary to keep out of the ball's way, to play it off at the side, either to the right or the left. If you stop to think of it a minute, you will realize how impossible it is to make any swing of the racket when the ball is approaching directly toward you. The body interferes with the racket and no swing at all can be made.

The watchword of success is to keep away from the ball and to give it plenty of room. To make the full swing and get power in the stroke, you must be able to carry the racket around behind you and then forward against the ball with great momentum. With the ball directly in front of the player, or too close to him at either side,

there is no chance for this, and the stroke is almost certain to be ruined.

However, it is quite possible to overdo this and reach too far for the ball. If you have to stretch far out, there is a tendency to lose the balance and one must either cut off the swing or step out to the side to recover his equilibrium. (See plate 8.)

Occasionally a ball will bound out farther than expected and it is necessary to step toward it a bit, even during the stroke. To be ready for this, as well as for any other shift, to be prepared to meet the ball on the jump and shift the weight with the body swing, the player should always be "up on his toes." This expression is meant literally as well as figuratively, and one of the worst habits the beginner contracts is that of playing flat-footed. This robs all strokes of their snap.

The position of the feet is always a fruitful source of error among beginners. Too often they forget the first principles of good form and make the stroke with the feet squared toward the net. The necessity of facing around sidewise should readily indicate the natural position for the feet, but this is constantly overlooked and the wrong foot put forward. This fault robs the swing and followthrough of most of their power.

With the wrong foot forward, the body must be turned more sharply at the hips in order to face Errors of Beginners in Positions and Grips 29

the ball at the side, and the arm and shoulder become cramped by this twisted position of the body and legs. For the greatest freedom, the feet should be parallel with the shoulders as the racket is drawn back to make the stroke.

But the player should assume this position only when actually making the stroke. The instant the ball is safely away, he should swing around again into the position to best await the next stroke, no matter on which side it may come to him. This is where so many beginners fail. They hit the ball and then stand still in the same position to watch the result of the stroke, or they prepare in advance for the next stroke from the same position, without knowing whether it will come on this side or the other.

This blunder instantly exposes them to attack on the opposite side, and often it is then too late to shift position again. Almost as important as the long grip on the racket and the free elbow is the need to learn the waiting position, and to return to it after every stroke. This is one of the hardest things to teach the average novice, and his inability to grasp its importance always makes it difficult for him to change quickly when surprised by a ball on the other side of the court from the last play.

In addition to playing the ball off at one side, it is best to strike it when it is about even with the

body, that is when the racket will meet the ball opposite the body. This gives the greatest freedom for swinging both backward and forward in making the stroke. A common error of beginners is to hit the ball too far forward, and this cuts off all chance of following through at the end of the stroke to add power and direction to the ball's flight. (See plates 19 and 22.) The blow is mostly spent when made out in front like that, and the player loses half the power that the racket's momentum carried earlier in its swing. At the end of the stroke, the racket must be checked to swing off across the line of flight and bend back around the shoulders.

It is equally bad to hit the ball too far back, as this position robs the stroke of all its back-swing, and the certain result is a half stroke, more of a push than a blow. Here it is all follow-through and no back-swing, so the racket can gather no momentum before hitting the ball, and it lacks power for that reason.

Many beginners have the idea strongly fixed in their heads that all tennis strokes are made upward, that is, that the ball is hit from beneath and lifted over the net to drop like an apple on the other side. This is not the correct idea of the tennis stroke. The force is almost entirely directed forward horizontally to drive the ball straight ahead, but with enough upward lift to carry it over. A little speed will overcome the tendency

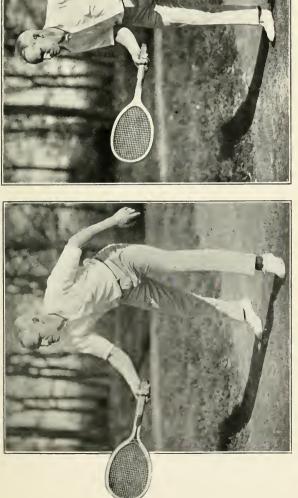


PLATE 8

PLATE 9

TWO COMMON ERRORS OF FIRST PRINCIPLES

Here the player has reached out so far from his T body that he is in danger of losing his bal-

The other extreme is just as bad and here the elbow is close in against the body, preventing any freedom.

ance.

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to drop too soon, and a slight upward motion in the swing helps to lift the ball over the net without striking from underneath. (See plates 20 and 21.)

To sum up the errors of beginners in positions and grips, the novice should keep in mind the following points:

Don't hold the racket with a short grip; take it by the extreme end.

Don't use the first finger straight up the handle.

Don't hold the racket loose enough to let it twist in the grasp, nor clench it so tight as to tire the hand.

Don't let the ball get close in, so the playing elbow can become cramped during the stroke.

Don't ever play the ball directly in front of you; this position is impossible for any stroke.

Don't make a stroke with the feet squared toward the net, or parallel with it; don't put the wrong foot forward while making a stroke and don't stand flat-footed on the heels.

Don't hit the ball too far forward or too far back; the correct position is opposite the middle of the body.

Don't hit the ball from underneath, except to make a lob; play it from behind with an upward motion of the racket to carry it over the net. V

FOREHAND STROKES OFF THE GROUND

MONG the great variety of strokes that constitute a game of tennis, by far the most important are the forehand strokes played "off the ground." A forehand stroke is one that is made with the ball on the same side of the body as the playing-arm—that is, on the right side for a right-handed player. This is the most natural and easy way to hit the ball, so all players use these strokes by preference whenever possible.

Not only are forehand ground-strokes the most important but also the most numerous during the play, comprising more than half of the entire game. Now, a ground-stroke is one made after the ball has bounded from the ground, this term being used in contradistinction to volleys, which are strokes made before the ball has touched the ground, or, as the boys say in baseball, "on the fly." To volley is to hit the ball "on the fly."

The greatest difficulty that beginners have to overcome is the tendency to wait for the ball to come to them and then to make a jab at it. It is very difficult to convince anyone, until he has played for some time, that it is possible to draw back the racket some time before the ball actually reaches the striking-point, but this is necessary in order to make a good back-swing that will give the ball speed and direction.

It is even possible to anticipate the stroke so far that a pause can be made at the end of the backswing, which will have a tendency to steady the player and increase his accuracy. The danger is that most players hesitate so long before the backswing is started that they begin it too late. Of necessity it must then be cut short in order to make the actual forward-swing that completes the stroke in time to meet the ball at the only point at which it can be hit.

The average beginner starts with no back-swing at all, standing upright with the racket held a foot or two behind the point at which he expects to meet the ball. He waits for it to bound to the proper height and then makes a jerky jab at it with an awkward motion that permits no speed or power and cannot possibly control the direction of the ball with accuracy.

This hesitation and reluctance to start the stroke early enough comes from the inability to calculate the angle and distance of the ball's bound and the flight itself. Boys who have played other ball-games—particularly baseball, "stoopball" and such games where a bounding ball is used,—learn tennis much quicker, because the eye has been trained through these sports.

Whether from tennis itself or from some other ball-game, the eye gradually becomes accustomed to the calculation that is necessary, and a fairly close guess can soon be made as to where the ball will rise to be hit, long before the stroke starts. Then confidence will help the player to begin the back-swing in time to gauge the stroke properly. Any beginner can do it, if he will center his attention on this point until he has overcome the first fear to make the start when still in doubt as to the flight and bound of the ball.

There are several distinct varieties of forehand ground-strokes, but of these the most useful of all is what is commonly known as the "drop-stroke." The same stroke is also spoken of frequently as the "lift-stroke," and occasionally by some of the uninitiated as the "Lawford."

Under whatever name you may know it, this stroke is always made with a lifting motion of the racket that wipes the strings across the cover of the ball and gives it a forward spinning motion that is known by experts as "top-spin." The stroke is made with a glancing blow of the racket, and this brushing motion that makes the ball twist on its own axis gives it much the same effect as the "drop-curve" ball of a baseball



PLATE 10. START OF THE FOREHAND STROKE

Note the long back-swing that earries the racket far behind and above the right shoulder, even to the bend of the wrist. The body is turned completely and weight thrown back entirely over the right leg.

pitcher. It is from the lifting motion of the racket and the dropping effect on the ball that the characteristic names of the stroke are derived.

The stroke itself cannot be made with a short swing; it must not be a half-arm push shot, but a long swinging blow that meets the ball with a strong glancing impact and drives it away with great vigor. Some players use a forehand stroke without this twist, but their strokes as a rule lack the speed and dropping curve that make the drop-stroke so useful. There are also cut-strokes and twist-strokes, but these will be described in another chapter.

In playing this most useful of all ground-strokes, the ball may be taken at any height above the knee. The power of the stroke, however, is much increased the higher the ball is played—that is, the higher the point at which it is struck. Because of the upward motion of the racket, it is very difficult to play the ball from the top of a high bound, and the best position is opposite the waist-line. Anywhere from the knee to the shoulder is all right, but from the knee to the waist is best.

As the ball approaches, the player should be in a position well back of it and (if right-handed) to the left of where it is expected to bound. With the feet spread well apart, the knees bent, the weight up on the toes, and the body bent forward

in a semi-crouching position, ready to spring at the ball, the player is ready to begin the stroke.

The racket should be drawn back sharply with a long swing, the weight being shifted as it goes back over to the right foot, and the shoulders being turned completely around (see plate 10) so as to lengthen the back-swing. When the racket is checked before the actual stroke begins, it should be well behind the player's head and above the level of the shoulder.

There should be hardly any pause at the end of the back-swing, unless it has been made too early, and then the arm can be checked a little longer until the ball has reached the proper point to be hit.

The actual stroke itself begins at the wrist which straightens somewhat its sharp bend; then the arm and shoulder take up the swing, and just before the ball is met, the entire power of the whole body is centered in the final drive that gives the racket its great momentum. The shoulders turn halfway round till they face almost toward the net (see plate 11), the arm brings the racket up into line to meet the ball and the final bend of the wrist adds a snap to the blow that gives the ball great speed.

But the ground-stroke does not end when the ball is hit. That is a popular fallacy which pre-



PLATE 11. MEETING THE BALL FOR FOREHAND DRIVE

As the racket meets the ball, the weight is swung over to the left foot, the body turned and the weight thrown forward, with the left arm extended as a counter-balance.

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vents many ambitious players from acquiring real skill. To be sure, the flight of the ball cannot be affected by any motions you may go through after it has left the racket, yet nevertheless, the following swing does affect the stroke. The racket must not be checked immediately after hitting the ball; if that is tried, nothing can prevent a slight reduction of its speed before the ball leaves the strings and the stroke is certain to suffer immediately.

On the contrary, it must follow on in the same direction as far as the reach allows and then finish the swing in the easiest and most natural method the arm will permit. This brings it upward and across in front of the body, until the elbow bends and the swing is checked over the left shoulder by the wrist. (See plate 12.) This ending is doubly essential because on it depends the allimportant follow-through that gives accuracy and speed to the stroke.

The shoulders follow after the racket, turn with the playing-arm and add their weight to the stroke, and the left arm is used as a counterbalance, swinging well out at the side clear of the body. The whole weight has gone forward with the swing, and at its end the shoulders, arm and wrist all do their part in checking the racket without a jerk or a collision with the left shoulder.

But the whole stroke, described this way in sections, is really one long continuous sweep, without any perceptible division. The weight, starting far back on the right foot, shifts gradually to the left and at the end of the stroke, the right foot in the rear carries no weight at all. The hips move forward during the stroke perhaps a foot, and the shoulders at least two feet, which shifts the balance of the body automatically from one leg to the other.

This seems rather intricate for a beginner, to be sure, and I do not expect that any novice can do all these things when he first starts to play. But a general idea of how the stroke is made by an expert is best to be understood, and then the beginner can practice one point at a time until the entire sequence is completed and the stroke mastered.

It is very important that when the racket meets the ball, it should be moving as nearly as possible in the direct line that the ball is to take. The only variation from this should be the slight upward lifting tendency of the racket that is necessary to give the much-desired top-spin.

The pictures that accompany this chapter show better than words how this stroke should be made, and a beginner could not do better than practice the same motions with a racket in his hand before a mirror—many times, many hun-



PLATE 12. FINISH OF THE FOREHAND STROKE

The body turns completely at the end of the swing, and the racket passes over the ball and up over the left shoulder, finishing with a bend of the wrist. The follow-through is well shown here. ~

dreds of times, in succession—until the swing can be made with fair imitation of this style. When an actual ball must be hit, the attention is distracted a good deal from the swing of the racket in the effort to make connections, so that one often forgets the most important elements that go to make a successful stroke.

The forehand ground-stroke is really the cornerstone of the whole game of tennis, and too much attention cannot be concentrated on its perfection. Taken briefly by points, the most important features may be memorized as follows:

Success depends on a long swing and plenty of momentum in the racket.

The swing begins with the wrist, then extends to the arm and finally to the shoulders, until all accumulate their power in the racket just as the ball is hit.

The ball should be met at a height between the knee and the waist.

The racket should be swung as nearly as possible in direct line with the flight intended for the ball.

It should have a slight upward tendency as it meets the ball to give it the spinning motion needed for a drop-stroke.

The follow-through should be full, the weight of the body and shoulders swinging after the ball until the racket is checked.

The weight starts on the right foot and swings forward with the racket until it is all over the left foot at the end of the stroke.

The stroke must be made with a long even swing, without break or pause.

VI

BACKHAND STROKES OFF THE GROUND

A LL backhand strokes in lawn tennis are distinguished from forehand strokes in that they are made with the ball on the opposite side of the body from the playing-arm. For a righthanded player, they are strokes made when the ball is played on the left side of the body.

In order to avoid the weakness of playing with the arm across in front of the body, which is an unnatural way to hit the ball, the position is turned around, right side toward the net, so that the playing-shoulder is brought out in front and clear of the body, which permits an unhampered swing.

Instead of having the power behind the ball, as in the forehand stroke, the arm is somewhat ahead of the ball, and the stroke becomes more of a pull than a push shot. Because of this peculiar position, the backhand strokes are one of the greatest stumbling-blocks for every beginner, and more errors are made in this play than in any of the others.

The methods of gripping the racket, which vary

distinctly for this stroke from all the others, have been fully covered in a previous chapter on the grips, and the general elements of good form, described in another chapter, also bear strongly on this stroke. But in addition to these, there are a good many points which apply only to backhand strokes, that the beginner should study carefully before going deeper into the play.

As in the forehand stroke, there are the same options regarding the best way of hitting the ball and the exact amount of twist to put on it. One can play the ball nearly straight with little or no twist, by using a perfectly straight followthrough; he can put top-spin on the ball and give it the same dropping tendency already recommended for the forehand stroke, or he can use a chop-stroke that will make the ball spin backwards in its flight through the air.

The last of these will be covered in the next chapter on twists and cut-strokes, but of the first two styles, the drop-stroke is considered preferable and will be described here as the best for the beginner to learn. The same motions and the same style of hitting the ball are good for both the straight-hit and the top-spinning ball, the chief differences being in the upward movement of the racket as it meets the ball and the finish of the stroke, which ends the swing with the racket much higher.



PLATE 13. START OF THE BACKHAND STROKE

The back-swing carries the racket up over the left shoulder and well behind the back, while the body turns to free the shoulder and extend the swing; weight is all over the left leg.

For the best backhand strokes, however, the body should be turned well around, with the right side and shoulder (for a right-handed player) toward the net and the chest presented toward the ball as it is to be hit off at the left side. The right foot must be forward or toward the net and the left behind it in line with the ball's flight.

As already explained in earlier chapters, the ball should be given plenty of room so that the elbow shall not become cramped; the player's weight carried well up on the toes, with knees bent and the body leaning forward so that he can jump at the ball as he hits it.

As the ball approaches, long before it is time to strike, even before the ball touches the ground, the racket should be drawn back at full arm's length until it reaches the limit of the reach, and then bent by elbow and wrist around behind the head and over the left shoulder. (See plate 13.)

The weight is gradually shifted as the racket swings back until it is all carried on the left foot. First the body from the hips up and finally the shoulders are turned to increase the reach of the arm until three-quarters of the back is presented toward the oncoming ball, and the head looks over the playing-arm to watch the ball approach. The right foot becomes almost idle at the end of the back-swing and rises on the toe as the body bends back with the shoulders.

There is generally a slight pause at the extreme back of the preliminary swing, when the player steadies himself and times his stroke to meet the ball at the right point and with the greatest amount of power. Perfect timing is the highest art in making a powerful tennis stroke, for it makes the racket meet the ball when carrying the maximum amount of momentum. At first most beginners time their strokes badly and even a full swing produces little speed.

When the forward stroke begins, the wrist does the first work, starting the racket and bringing the head into line to meet the ball. The elbow follows, pulling the racket still faster on its way, and when the arm finally brings it around and straightens out for the blow, the racket should have accumulated a good deal of speed.

The swing of the shoulders, as they straighten out, and finally the weight of the body shifting from the left foot to the right, both add their additional energy to the momentum until the racket is traveling at its maximum speed when the ball is met.

Now, it is very important that all forward motions (and the backward motions too, for that matter, in a lesser degree) shall be in the same plane of force. That is, the arm and racket handle should be kept as nearly straight in their swing as possible. The wrist and elbow must bend



PLATE 14. MIDDLE OF THE BACKHAND STROKE

As the swing brings the racket forward to meet the ball, the weight is shifted over to the right leg and the body follows fast to increase the blow. The racket must be kept in line with the arm as the stroke is made.

backward and forward as they swing, but they should not bend up and down.

Many English players prefer a low elbow for the backhand stroke, but this style carries with it a sharp angle between the wrist and the racket handle, which is one of the drawbacks of the English method of making the stroke.

Study the accompanying illustration (plate 14) and you will see the point that is intended to be brought out here. The power of the arm is transmitted through a jointed rod consisting of the upper and lower arm, the wrist, hand and racket handle, all of them very nearly in the same plane of force. The effect is more power and a more direct blow that can be better controlled than one that is transmitted through a bent rod like an arm with the low elbow that is used in the English style of play.

The ball should be met at a height between the knee and the hip, but the latter is generally thought to be the best point at which to strike it. The ball should also be slightly forward of the body, or opposite the right foot and right shoulder when hit. For forehand strokes, the ball can be met farther back, because the shoulder of the strikingarm, which is the center of the swing that hits it, is farther back in relation to the player's body and eyes.

Just as the ball comes in contact with the racket,

the racket should be drawn slightly upward, so that it is met with a glancing blow, and kept in contact as long as possible with the ball; it should pass over it in the swing and be turned before it leaves till the upper part of the frame is forward of the lower part.

This brushing upward motion twists the ball, makes it spin on its own axis and gives it the rotation that is so effective in making it drop quickly after crossing the net. The dropping curve permits the player to hit the ball much harder and still keep it inside the court-lines.

Perhaps the end of the backhand stroke is the most difficult part of the play. As the racket leaves the ball, the body weight should swing after it as long as possible, and this follow-through is especially important in helping to keep the ball straight on its course. The weight shifts all the way forward, until entirely over the right leg, and the shoulders lean as far after the ball as possible and still keep the balance, lengthening the swing of the racket.

As the limit is reached, the racket turns off to the right, the shoulders bend completely around to extend this motion and follow the arm as it checks the swing, finishing with the player's body facing the net and the line of flight that the ball has just taken. (See plate 15.)

When the straight-hit ball, the stroke with little



PLATE 15. FINISH OF THE BACKHAND STROKE

As the racket passes over the ball to give it the top-spin necessary for a drop-stroke, the wrist bends over and the racket finishes with the thumb on top. Note the turn of the shoulders and long follow-through.

or no twist, is played, the end of the swing is much lower down and the racket is not drawn off as sharply to the side, following longer after the ball in its flight. But for the backhand drop-stroke, probably the most effective of all these plays, however, the racket should end well above the shoulder, more or less out to the right side, according to individual style, and turned over in the grasp as shown in the illustration.

Theodore Pell, noted as the best backhand stroke player in the country, uses very much the same style as that illustrated here; while Raymond Little, another expert in this kind of play, finishes the stroke with his racket not quite so high nor so far out to the side. Ex-champion Larned came as near to playing a straight-hit ball backhand as any of the modern experts, and his racket finished still lower down and farther out in front than either of the others.

Summing up the points that apply chiefly to backhand ground-strokes, the student should keep before him these which seem the most important:

As the stroke starts, the body should be turned completely around so that the right shoulder faces the net, and the feet are in line with the flight of the ball.

The back-swing should carry the racket back over the left shoulder and the body should be turned at the hips to increase this reach.

The power of the blow should be transmitted through the arm, wrist and racket handle traveling as nearly as possible in a straight line and in the same plane of force.

As the ball is hit, the weight should be shifted from the left foot to the right and the shoulders turned to increase the momentum of the racket.

The racket should be drawn upward while in contact with the ball and turned slightly by the wrist, so that it will pass over the ball and brush it into a twisting motion.

The end of the swing should carry the racket well out to the right and above the level of the shoulder.

For the straight-hit backhand stroke without twist, the racket should finish lower down and further out in front.

The principal features of the forehand play also apply to backhand strokes: They need a long swing and great momentum on the racket; the ball should be met between knee and hip; all motions should be made in direct line with the ball's flight; and the same long follow-through is needed to make the ball travel fast and straight.

\mathbf{VII}

CHOP-STROKES, CUT-STROKES AND TWISTS

N EARLY every ball that is hit in tennis twists more or less on its own center. The ball itself is so light and the cover so rough that it is almost impossible for the racket to hit it so directly in the line of its flight that some slight side motion will not cause it to revolve or spin around as it goes.

But this spinning is a distinct advantage, so even if you could prevent it, it would be unwise to do so. Any spherical body travels better through the air when revolving, for this spinning motion helps to overcome the resistance of the air. The earth itself revolves in space, we know, the modern cannon ball is made to spin by the rifling inside the gun, and the same principle has been adapted for baseball, golf, billiards, bowling and other sports in which a ball is used.

I have already shown in the previous chapters that the top-spin of the drop-strokes helps the ball to curve in the air, and drop to the ground in time to strike inside the court, when otherwise it might often fly over the base-line. The same spinning motions of the ball are also used in almost all services, the American twists being the most exaggerated varieties. These service strokes will be treated in another chapter.

But, in addition to these, there are in tennis many strokes that are known as cut-strokes or chop-strokes. The predominating feature of all these is the under-twist on the ball that is imparted, for a cut-stroke or chop-stroke always makes the ball spin *backward* in a direction opposite to that used in the drop-stroke. The spinning motion is against the flight of the ball through the air, the top moving backward and the bottom forward, which is again exactly opposite to what happens when the top-spin is used.

All of these strokes are made by striking the ball with a glancing blow, the bottom edge of the racket being forward and the strings touching more of the under side of the ball than the top. In order to prevent such a blow underneath from lifting the ball up too high, the swing must be made with a downward angle. The racket starts high and ends low, very different from the dropstroke, and the head is dragged across the ball sharply while the strings are still in contact with its cover.

In making the chop-stroke, the player crouches even more than in any of the other strokes, the bend from the hips forward being more pro-



PLATE 16. START OF THE CHOP-STROKE

The racket is drawn back less than in the drop-stroke and the shoulders are bent forward from the hips. The racket is also turned more in the grasp so that it will meet the ball with a glancing blow.

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nounced. The racket is swung back slower than in the drop-stroke, and not nearly so far. Few of the cut-stroke players carry their rackets in the preliminary swing back farther than behind the shoulder, as shown in the illustration (plate 16).

As the swing is shorter, it can be made later and the player is often able to gauge his stroke with greater accuracy than with the drop-stroke. This is the feature that generally appeals to beginners, the short swing, and many adopt the chop-stroke style at first and change afterward when they learn of its limitations. It is much wiser to begin with the other stroke and learn that properly to avoid the necessary change in style afterward.

The position of the feet for the chop-stroke also is slightly different from the others, as the shorter swing does not depend so much on momentum, and the right foot is extended as a rule farther forward to steady the player as he strikes. As golf players would put it, the stroke is made "off the right foot," while the drop-stroke is made off both feet, the weight being pretty equally divided during the stroke.

As the racket is brought sharply down to meet the ball, the shoulders straighten up a little to take some of the bend out of the elbow, but at no time in the stroke is the arm as straight as in the other strokes. There is an inclination to bend the elbow somewhat in making all chop-strokes, and

this bend is not fully straightened out with most players until the very end of the stroke.

When the ball is met, all of the body weight is suddenly exerted in the racket, the shoulders doing more than the hips, and the wrist adds to the "drag" of the racket across the ball to give it the necessary twist. As the stroke is finished, all of the weight is thrown over to the forward foot and the arm and racket end their swing with the downward thrust still further pronounced. The racket finishes out in front of the left knee, extended at the full length of the arm, and the shoulders turned around completely in their effort to check its swing without losing the balance. (See plate 18.)

The same strokes can be played on the backhand side (the illustrations show only the forehand cut-stroke) with much the same effect. The position is even less free on the backhand side, however, and the cramped elbow and short swing are even more pronounced.

But, aside from the method of producing the chop-stroke, the effect on the ball is even more interesting. Reversing the top-spin, the undercut ball has an unmistakable tendency to stay up in the air longer. There is greater air pressure on the under side of the ball than on the top, and this naturally works against gravitation and makes the ball "sail," as the players describe it,



There is a pronounced bend in the elbow and a constrained position in making this stroke that are apparent in this picture. The sharp bevel of the racket's face is shown also here.

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keeping up longer than is natural and then dropping lifelessly at the end of its flight.

The greatest difficulty the player has to overcome in using the chop-stroke is its tendency to drive the ball out of court. In order to prevent this, the stroke must be played slower and with less power so it will not go too far, and this necessity robs the stroke of the virtue of speed that other styles possess.

As against this drawback, however, it must be conceded that the short back-swing and the more constrained position permit greater accuracy, and as a rule chop-stroke players have a closer control of their slow returns than do drop-stroke players of their faster shots. The player can delay longer before striking and this allows him to change his swing later if a bad bound or a change in the opponent's position makes it necessary.

On the other hand again, it is much easier for the opposing player to volley an under-cut ball at the net than a drop-stroke, for its under-spinning motion makes the ball twist downward and go away from his racket faster.

The revolution of a top-spinning ball tends to make it leave a volleyer's racket slower and jump upward when volleyed. For this reason, the cutstrokes are less effective against an opponent who is at the net ready to volley, and the drop-strokes are the best against such an opponent. Con-

versely, the drop-stroke is best against a net player and weakest against an opponent at the back of his court.

As has been said already, it is a distinct advantage to play the ball from as high in the air as possible, but the upward motion of the racket makes it difficult to do this when making a dropstroke. The motion of the racket in the chopstroke just reverses this, being in the downward direction, so that these strokes can be played from a much higher bound than the others.

Often the disadvantage of the under-twist which keeps the ball up in its flight can be overcome by striking it from a higher point and consequently closer to the net, which will sometimes take the volleyer by surprise and pass him with the slower ball this stroke affords, because played with more of a downward angle which allows it to travel nearly as fast as the other and still keep inside the court-lines.

Some players succeed in using side twists with either a top-spinning or an under-cut ball. When hit with a horizontal racket these are only possible by advancing the wrist well ahead of the ball and drawing the racket in toward the body while in contact, which gives the ball an out-twist as well as an under-spin or a top-spin according to whether the racket travels upward or downward when it meets the ball.



PLATE 18. END OF THE CHOP-STROKE

The finish of the swing is the most characteristic feature of this stroke, for the racket ends far out in front of the left knee, swinging in a downward direction. The shoulders are thrown after the ball rather than straightened up in turning.

These side-twists are used most in the services, however, which are made with a racket that is more nearly perpendicular, and therefore allows the motion to be sidewise without interfering with the body swing, by the use of the wrist. This will be taken up, however, in a later chapter under the heading of services.

The most important points in studying the chop-strokes and cut-strokes might be summarized as follows:

All spherical objects travel better through space when revolving on their own centers, and the tennis ball follows this rule.

Chop-strokes and cut-strokes are made by striking the ball a glancing blow in a downward direction.

The ball always spins backward, with its top moving in the direction opposite to its flight and reversing the effect of the drop-stroke.

This under-spin keeps the ball up in the air longer because of greater air resistance on its under side, and the stroke must be played slower to prevent it from going out of court.

The ball can be hit with a chop-stroke from the top of the bound, and from a higher bound than in the drop-stroke, where the racket is moving upward.

The swing is shorter and the racket always under better control than in the other style.

The swing starts over the right shoulder for the forehand stroke and ends in front of the left knee.

Chop-strokes are poorest against an opponent who is ready to volley at the net, and most useful against an opponent at the base-line.

Side twists are used only occasionally in groundstrokes, but are in constant use in services, particularly in the American twist varieties.

VIII

Errors of Beginners in Ground-Strokes

THERE are many errors in stroke play which are common to all beginners in lawn tennis, but it is not always easy for a novice to discover where his faults are. One looks at the pictures showing good form and reads the instructions, and then goes out to put into execution what has been studied. It seems simple and many beginners fall into bad habits in blissful ignorance of the trouble that causes them. They think they are following the rules they have studied for good form until some experienced player tells them of their error.

It is no easy task to see your own faults, and for this reason it is an excellent plan to practice swinging the racket in front of a large mirror when possible, to watch the style of the strokes under practice and see if they are played as required by the dictates of good form.

In the absence of a professional coach, even the mirror test is not always satisfactory, and I have planned to show by photographs some of the errors most common to beginners, so that they may identify their own mistakes by looking

at these pictures. A careful study of the illustrations which accompany this chapter may show some of the stumbling-blocks in making groundstrokes.

The same troubles that have been described in the chapter on the errors of beginners in positions and grips also apply in stroke play. The short grip of the racket and the resultant short swing are deadly faults that will prevent the beginner from ever making good strokes. These two travel together hand in hand, and when one is eliminated the other disappears with it, so they are doubly important to conquer.

With the wrong foot forward for the play, as shown in plate 22 illustrating a poor backhand stroke, another weakness handicaps the player. There is no power in a stroke made in this way, and when combined with a short grip, this position so cramps the player that he has no chance at all for a full stroke at the ball. When the weight cannot swing with the arm, and the reach is cut off by the short grip, what chance has the ball got for good speed?

Standing upright, with flat feet, the weight down on the heels, and with stiff knees, all help to prevent the body swing and follow-through that are needed to make a good stroke. One has got to throw himself at the ball, so to speak, not wait for it to come to him and then push it away again.

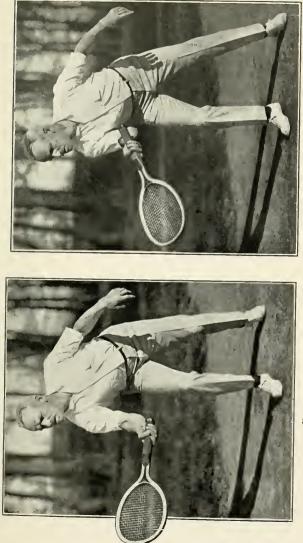


PLATE 19

PLATE 20

COMMON ERRORS OF BEGINNERS IN FOREHAND STROKES

The player here has the wrong foot in front, a short grip and is leaning so far forward he can get no follow-through in the stroke.

Striking upward like this is the wrong idea of the stroke. The ball should not be hit from underneath but behind. Note also the short grip.

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Beginners often fall into the habit of fighting the ball away from them. It is not uncommon to see a novice center all attention on the simple effort to push the ball away as though he were afraid it would bite him. He gives no heed to how he hits the ball or where he knocks it; all that he wants is to get it away from him and back over the net again.

This is a bad habit of mind to get into. -You want to get more the idea of jumping at the ball to punish it, and put enough "steam" in the stroke so that it becomes an attack against the adversary. Soon you will find it not difficult to aim or place the shot also, and then the attack becomes doubly effective.

Never under any circumstances move backward when the stroke is being made. All power will be robbed from the blow if your weight is moving away from the ball instead of toward it. A constant error of beginners is to move up too close to the ball as it approaches and then to step back as they strike. No habit could be worse than this. They get in close for fear that the ball will fall short and that they will not have time to go forward to meet it, but if they will cultivate the bending position and jump at the ball each time, they will find it much better to stay well back of where they expect it to bound and then to move forward, instead of backward, to meet it.

Few beginners ever realize that it is necessary to have the body abreast of the ball when it is hit. They think it all right to strike with the arm extended out in front of them, but this position robs the blow of most of its power, as all the body weight is then spent and cannot be put into the stroke. (See plate 19.) It is useless to make a long swing at the ball if it is not to be met until the very end of the swing, for then the body weight will be spent and it will be impossible to follow the ball after hitting it.

But it is equally bad to hit the ball too far back. This forces the player either to step backwards as he strikes, a deadly sin, or to play the ball before the swing has really got under way. It is necessary to get the racket under full momentum before the ball is met, and this is not possible if it is played when opposite the right foot.

Golf players talk of "playing off the right foot" and "playing off the left foot," but the best experts play the ball opposite the middle of the body with neither foot extended noticeably beyond the line of flight. Exactly the same principle is involved in tennis, and the same rules and the same results apply, except for the chop-stroke.

Another fatal pitfall which snares a great number of beginners is the desire that comes soon after the first rudiments of the game have been learned, to hit every ball hard. This is a development of skill that should come long after the player has become fairly expert. Speed should never come before accuracy, even with tournament players, and it is essential first to learn steadiness, so that the stroke is seldom missed, before any attempt is made to add speed to the shot.

It is far better to make a slow stroke successfully than to wildly slam the ball about the court and miss a large proportion of the returns by driving into the net or out of court. The desire to "kill" every ball often follows close after the first dawning of a modest skill on the part of the beginner, and then it is that nine out of ten such players ruin all hopes of ever playing well.

The spectacular "gallery play" is not the winning style anyway, even for expert players, who more often fall before the steady, safe men who get everything back over the net and do not try to knock the cover off the ball every time they hit it. It is a fine rule to keep in mind to let the other man make the errors in his efforts to show off; if you will keep the ball going back over the net and into his court, you will be the most likely winner of any match in the end.

It seems almost unnecessary to warn even the novice against playing a backhand stroke underhand, that is, with the front of the wrist forward and the head of the racket held downward (see plate 21), yet there are some beginners who make this fatal error. This style is least uncommon among girls, but they are sometimes seen in this remarkable position without realizing the hopeless impossibility of making any effective stroke in this fashion.

Among the things that the beginner should not do in making ground-strokes may be noted the following:

Don't try to guess at your own faults; study these pictures and practice before a mirror to discover your errors.

Don't use a short grip or a short swing, and don't play with the wrong foot forward.

Don't make the stroke with stiff knees, flatfooted and the body held erect; bend down to your work and jump at the ball.

Don't fight the ball away from you as if you were afraid of it; go right to the ball and punish it.

Don't move backward as you strike; this ruins any stroke.

Don't hit the ball forward or behind your position; meet it at the middle of the swing opposite your body.

Don't try to hit the ball too hard at first; get it back over the net and let the other man make the errors.





PLATE 21

PLATE 22

FAULTS OF BEGINNERS IN BACKHAND STROKES

Here a novice is shown playing a bull upward from underneath with his arm across in front of his body. This is a hopeless error.

Note the extremely short grip shown here, the wrong foot forward and the ball being hit too far in front of the body.

\mathbf{IX}

THE SERVICE

THE service in lawn tennis is hemmed about with more rules than any other stroke of the game. For the others, you are left wide freedom as to how you shall stand and where you shall hit the ball, but for this opening stroke of the game the rules are more specific. Except that one cannot volley on the first return, the player is given the freedom of the whole court in all of the other strokes.

The "foot-fault" rule, that which governs the position of the server's feet, is broken more often than all of the other rules of the game put together. It is well, therefore, to understand it clearly and be governed accordingly. Before beginning to serve at all, the novice should be familiar with this rule.

Both feet must be back of the base-line when the ball is hit, and this means exactly what it says. It is not a fair service if either foot touches the line or is inside of the court at the second when the ball leaves the racket, no matter whether the offending foot be in the air or on the ground.

Beginners, as a rule, have a very hazy notion

of what the limitations of the server are, and most of them foot-fault constantly until some more experienced player impresses them with the right idea of the rule.

The modern overhead service stroke is very much like the blow of a woodsman's axe. It is made from above, forward and downward from over the player's right shoulder, with a long swinging blow. Only one hand and arm are used in making it, however, not two, as when a man swings an axe. The service is always a volley, that is, the ball is hit in the air before it touches the ground, and the player can select his own time and position for striking it, because he controls both by throwing the ball up to meet his own convenience.

For all right-handed players, the left foot should be forward toward the net and the body turned well around, as in the forehand stroke, to get the free use of the striking arm and side. It is hopeless to try to make a good service with the face turned directly toward the opponent and the feet squared around toward the net. The only exception to this rule lies in the "reverse twist American" service, and this will be described in the next chapter.

It is best to hold two balls in the left hand when the service is started. Three are generally an embarrassment, and to hold only one is a disadvantage, as the player is likely to lose the exact range of the court, if he changes position and looks down to pick up another after making a first fault.

The ball that is to be used first should be held between the first and second fingers and the thumb of the left hand, and allowed to run up along the first finger which guides it, when it is thrown up for the stroke. The idle ball can be held easily against the palm with the other two fingers, and securely enough not to be dropped while the stroke is being made.

Throwing up the ball itself requires some practice, as a good service depends a good deal on placing the ball at exactly the right point to hit it properly. The ball should be struck as high as the racket can reach and directly over the right shoulder when the body is bent back to make the stroke.

As the player becomes more expert, he learns, as a rule, to bend slightly further back, and then the ball is met at a point directly over the right eye. This seems like splitting hairs, to be sure, but a good deal depends on the best angle of the body in making the stroke. Raymond Little declares that for a perfect service, the ball would strike the player on the right eye, if allowed to drop without being hit.

The racket is swung back sharply in making

the service, quicker than for a ground-stroke, and the start is made just before the ball is tossed up. The body is swung around from the hips and shoulders, as the backward sweep is made and the ball is thrown. The arm is bent sharply at the elbow and wrist so that the racket passes around entirely behind the head and then drops down behind the back, until its head hangs down at an angle pointing toward the ground. (See plate 23.)

It is well to begin the stroke a little earlier than necessary so that a slight pause can be made at the end of the back-swing to time the racket to meet the ball at exactly the right point in the air.

The ball should be tossed a little, but only a very little, higher than necessary, and struck just as it pauses in the air, or just after it starts to fall again. Occasionally we see successful players throw the ball much higher than needed in the air and then stand waiting for it to fall; R. F. Doherty, the great English expert, did this, and over here Wylie Grant and a few others have also adopted his style.

But this method has distinct weaknesses, because of the extra effort and extra pause needed, and also because the ball gains momentum rapidly as it falls. When thrown much higher than necessary it is often moving downward fast when the



PLATE 23. START OF THE OVERHEAD SERVICE

The body must be turned well around to free the striking-arm, and the head and shoulders thrown back to hit the ball directly over the head. Weight entirely over the right leg.

racket meets it. The advantage of striking a ball that is moving very little or not at all over hitting one that is falling rapidly through the air must be apparent at once.

Throw the ball then only a few inches more than is necessary, but calculate to reach as far up as possible to make the actual stroke. Do not be misled by this into striking with a bent elbow, which ruins the stroke. The ball must be hit from as far up in the air as it is possible to reach it, even to getting up on the toes to increase the reach.

Beginners often strike the ball in front of the head or off to the side at a height opposite the face, but it is not possible to make a really good service without a higher position to strike from. Hitting too far forward will cause the ball to go into the net, as a rule, while a ball that is hit too far back will more often go out of court by traveling too far over the net.

The forward swing of the racket that makes the actual stroke must be started before the ball reaches the point at which you have calculated to hit it. The wrist begins the movement, starting the racket directly upward, and the elbow next straightens out its bend so that the arm and handle are extended to their full reach by the time the racket approaches the ball.

Then the body and shoulder take up the work

and the full force of the weight is added to the momentum of the racket so that it is traveling at top speed when the ball is met. Everything depends on great momentum in the racket in order to secure speed in the stroke.

But the ball must not be met squarely with the racket, as many beginners are inclined to believe. The overhead service stroke is even more of a glancing blow than the ground-strokes. The face of the racket should be turned in the hand so that the racket passes outside of the ball, the right edge of the frame, as it appears up in the air, being forward and the other side bevelling sharply backward.

The effect of this cutting stroke is to partially wrap the racket around the ball so as to grip its cover better and increase the twisting motion. Practically every served ball spins rapidly on its own center as it flies through the air. In the American twist services, this spinning motion is excessive, but even for the regular overhead service a sharp twist is needed to keep the ball down in court and make it fly faster.

The direction of the racket's swing therefore must be somewhat out of line with the flight of the ball. The racket starts from behind the back in an upward direction, then swings outward toward the right away from the player, and as it strikes the ball must be still forward and outward,



PLATE 24. MEETING THE BALL IN OVERHEAD SERVICE Note that the player uses every way to increase the reach. Shoulder is raised and arm and racket stretched straight upward to their limit of reach.

The Service

in order to allow for the side pressure from the glancing blow it delivers. (See plate 24.)

The racket should be kept in contact with the ball as long as possible, and the grip of the strings on the rough cover is used to make it spin rapidly as it leaves the racket. It is quite possible to twist the racket until it is slightly over the ball before it leaves the strings, and the spin it gains by this will have added power in bringing the ball down to earth after crossing the net. The real problem of the server, of course, is to deliver a fast ball that will clear the net and still fall inside of the short service-court, and the twist helps wonderfully in this part of the work.

The ball can be readily placed to the right or the left of the opponent's service-court by turning the racket more or less in the wrist, as it is struck. Turning the wrist outward so the racket gets around more on the outside of the ball will help to force the ball over to the left-hand side (the antagonist's right side) of the court, and to turn it less, making the stroke with less twist, will have the effect of placing the ball more to his left.

As the racket leaves the ball, all the weight of the server's body and all the power of his shoulders are brought to play, so that the ball gains great momentum from the stroke. The speed of the racket pulls the player ahead rapidly, and before

the racket can be checked, he is generally forced to take a step forward, even if he does not start at once to run in to the net to volley the next return of the antagonist.

The end of the racket's swing should be far out in front of the left foot and slightly to the right of it—more or less to the right according to the amount of side motion the racket carried to give the ball the spinning motion. The racket should be allowed to swing forward until it nearly touches the ground, and it is a serious mistake that ruins the service to attempt to check the swing at a point much higher than this. (See plate 25.)

The follow-through is as important in the service as in the ground-strokes, and it is with both shoulders and body weight in this last end of the swing that it is most useful. Without the necessary following of the racket, the ball loses both power and speed, and it also becomes more difficult to control its direction accurately.

It is not expected that the beginner will be able to make a perfect service at the start, but it is advisable for him to learn and practice the stroke as shown in the illustrations and text of this chapter. When the swing is once mastered, it should be repeated hundreds of times even without a ball to hit, until it becomes one long, even motion without pause or jerkiness.

Before any attempt is made to serve fast, the



PLATE 25. END OF THE OVERHEAD SERVICE

The finish of the stroke carries the weight forward sharply, while the racket and arm follow after the ball and then downward almost to the ground as the stroke is finished.

stroke should be practiced steadily until the ball can be placed slowly, but with the right motions and twist, into the adversary's court with great regularity. The beginner should persevere until he can depend on his delivery to get the ball safely into court regularly with very few faults, and then gradually increase his speed and placing until the service has become a strong attacking stroke.

Expert players can afford to risk making double faults by serving their second balls fast, but a beginner never should try this. The second service should be moderated until there is practically no chance of missing it, and then this stroke can be gradually improved until it is not so soft that the opponent can take liberties with his first return. One should practice the service until he can be sure that the second attempt will be certainly good if the first service is a fault. Double faults are a foolish waste of good chances.

For those who want to take up the game systematically, the most important points to remember in studying the service stroke are as follows:

Beginners should study the "foot-fault" rule closely and remember that both feet *must* be back of the base-line when the ball is hit, even though one may be in the air.

The overhead service is like the blow of a woodsman's axe, a long swinging stroke, aimed down-

ward from high over the shoulder, but made with only one arm, of course.

The body should be turned with the side toward the net to get a full swing for the racket.

The ball should be thrown up only a few inches higher than it is possible to reach and it should be hit just as it turns to fall.

The back-swing should carry the racket behind the head and drop it down below the level of the shoulders.

The arm at elbow and wrist must be straightened out before the ball is met, in order to get the greatest possible momentum in the racket's swing, and to meet the ball at the highest point that can be reached.

The ball should be struck a glancing blow, with the bevel of the racket carrying its face somewhat outside of the ball, making it spin from left to right.

The swing should end with the racket near the ground and well out in front of the feet, and the follow-through of both shoulders and body should be as complete as possible.

Beginners should practice the stroke constantly until it can be made regularly without missing, and the second service should be moderated enough to avoid double faults.

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American Twist Services

THE "American twist" services, which have now become an established part of modern skill in the game, are a distinct type of service delivery (or perhaps I should say two types) which is radically different from the older methods so long in use. But these deliveries are too intricate and too difficult for the beginner to attempt, and it is far better to learn the game with the method described in the last chapter and take up the twist services when well along toward proficiency.

However, no player, not even a beginner, can talk intelligently on the game without at least a knowledge of how these services are made, and apt pupils who progress rapidly may safely try to learn them after the first elementary stages of the novice are past.

Aside from their intricacy, there is another serious drawback to the American twists for immature players, and that lies in the terrific strain that comes on the back of the server in making these strokes. This is exhausting and even dangerous for experienced and well-trained players, so novices would be taking unnecessary risks in

trying to play such strokes. A glance at the accompanying illustration (plate 26), which shows the position of the player at the beginning of this stroke, will suggest why many young men have strained their backs in trying to make the stroke, the backward bend being so severe.

Except in the hands of experienced players, also, the American twists are seldom effective, and generally produce only an additional wildness that gains little for the server. With mediocre players even, the stroke has seldom proved profitable and the server more often loses more than he gains by his efforts to produce the remarkable effect on the ball shown by these deliveries. Only among the most expert tournament players has it proven distinctly profitable, and often even their opponents find it no more difficult to handle than the older type of service.

The essential difference between an American twist service and a straight overhead out-twist delivery, as described in the last chapter, lies in striking the ball from below with an upward motion of the racket that gives the ball a forward spin similar to that of the drop-stroke played off the ground. This upward blow slows up the ball materially and makes it curve downward in its flight.

When the side-twist is combined with the topspin, as is almost always the case, the ball performs



PLATE 26. START OF THE AMERICAN TWIST SERVICE The keynote of this stroke is striking upward at the ball, and in order to do this, it is necessary to bend backward very sharply before the actual upward swing is started.

a double gyration in the air, curving sidewise as well as downward and bounding from the ground in an eccentric way that seems at first to defy all accepted laws of bounding balls.

Similar side-twists are used in the older method, but the ball is hit so much faster that they are unable to make it swerve much in its course, while the top-spinning ball slows up so much that the side-twists get in their work and make it curve sidewise out of its normal line of flight.

But the strangest effect of the American twist delivery is unquestionably the way it bounds from the ground, for the "break" is in the direction opposite to the curve in the ball's flight through the air. I shall never forget the first time I saw Holcombe Ward and Malcolm Whitman, who were the inventors of the stroke, play this service. I was so badly fooled by the curious bounds that I thought the ball had struck a stone or lump in the ground. I know I lost the first match to Whitman through sheer inability to fathom the curve and bound of his curious new delivery.

Since Ward's time, there have been quite a few variations of the American twist services developed by different men, and the positions of the players have not always been the same. In every case, however, where the straight American twist has been used, the player has had to bend over backward very sharply before the stroke is started in

order to make his racket strike an upward blow over his head. The knees are bent more or less in different styles, but all players bend the back and shoulders over very sharply, so that there is a heavy strain on the abdominal muscles.

The elbow is bent even more acutely than in the older delivery and the wrist allows the racket to drop down behind the back until almost perpendicular. In fact, McLoughlin's racket hangs perfectly straight behind his back at the beginning of the stroke. This is necessary to add to the swing so that the racket shall carry good momentum when it reaches the ball.

The ball is thrown up farther back than in the older style, and even after bending backward, it is more over the left side of the head than the right, as in the other service. When the upward stroke is started the racket travels very fast but cannot, of course, with its short range, get up the momentum that the longer swing of the old service permits.

Again the wrist does the first work, and the elbow and forearm follow quickly after in their effort to get speed in the racket, while the whole body straightens up, the jerk adding to the impulse of the stroke. When the ball is met the racket must be traveling upward still and slightly out to the right, and the timing must be perfect. During the short time the strings are in contact with the ball, the racket must be dragged upward



PLATE 27. MAKING THE AMERICAN TWIST

Straightening up the body gives quick impetus to the racket, and the sharp bend of the wrist allows it to strike while still moving upward. Note how the body has moved forward as well as upward.



and outward to give the ball the correct twisting motion.

Of all the strokes played in the game, there is no other in which the ball remains so long in contact with the racket, and this peculiar drag is possible because there is less impact in the blow than in any of the others. The amount of curve and "break" that the ball receives from this American twist depends chiefly on the time that the player can keep his racket brushing against the ball to accelerate the spin.

In every case, there is a sharp pull on the racket away from the line of flight just before the ball leaves the racket, as it is dragged out to the right and downward. The end of the stroke brings the racket down close to the ground in most cases and far out to the right, and this forward motion helps the player to get in motion in case he plans to run up to the net to volley, as is most often the case with users of the American twist service. (See plate 28.)

The most successful player of this stroke has been ex-champion McLoughlin, the red-haired Californian who swept the tournaments for several seasons, and the "Comet," as he is called, varies the motion somewhat by using his wrist more than most other players of the stroke. McLoughlin finishes his swing with a snap of the wrist that makes the racket travel backward instead of

forward at the end of the stroke. This accentuates the side-twist even more than the other ending and makes the ball bound even more off the line of flight.

The "reverse" American twist is made in a still different manner and is used by only a few players, most prominent among them being Bundy, of California. In making this stroke the player hits the ball in front of his right shoulder with an underhand upward motion that gives the ball the opposite spin from the other American twist delivery. It is even slower than the other, but has the same exaggerated upward top-spin with a sharp side-twist from right to left that makes the ball curve in the air in the opposite direction and then jump from the ground at a sharp angle directly the reverse of its curve and opposite from the other twist delivery.

In making this stroke, the player stands with his body squared to the net, and the swing is from right to left and upward across in front of the head.

The motion in making the reverse twist is not so severe as the other, for the back of the player does not bend so much to hit the ball. The upward motion of the racket comes from its peculiar underhand position, rather than the straightening of the back. It is hit much lower in the air also.

But this reverse twist has other drawbacks, too, for the cross motion of the racket checks the for-



PLATE 28. FINISH OF THE AMERICAN SERVICE

Note that the end of this stroke is quite different from the straight overhead service. The sharp side twist given to the ball carries the racket out to the right; in some deliveries this is so exaggerated that the racket travels backward at the end.

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ward movement of the server, and he is not so well able to run up to the net as in the other style.

There is one excellent rule that all players should keep in mind in considering twisting balls in tennis, and this applies to the American twist services as well as to other strokes. The curve in the air of any ball will be in the opposite direction from that which the racket traveled at the moment of impact with the ball, and the "break" from the ground will be in the same direction that the racket was moving when it left the ball.

As applied to the twist services, this rule works out simply and will help the beginner to solve the curious flight and bound of such a ball. When the server's racket is moving from left to right as the ball is hit, the ball will curve in the air from right to left and bound from left to right in consequence of this twist. These directions are taken from the server's point of view, and for the opponent they must be reversed.

If the beginner will simply watch his opponent's racket as it swings through the air and remember this rule, he will be easily able to tell in which direction the ball will curve and bound.

For those who do want to study the American twist services, perhaps the most important points to be kept in mind are as follows:

The ball must be struck upward to get the twisting effect of this delivery.

This requires the player to bend over backwards very sharply, and the position is physically very severe on the muscles of the back and abdomen, particularly with beginners.

It is of practical value only in the hands of an expert and well-trained player; the beginner is apt to lose more than he gains by using it.

The side motion of the racket must come while the strings are still in contact with the ball's cover, and the effect cannot be secured without this side motion.

The ball carries both top-spin and side-twist, which give it a double curve in the air and make it bound at a sharp angle from the ground.

The curve in the air will be in the opposite direction from that in which the racket was moving when it brushed against the ball.

The bound from the ground will be in the same direction that the racket was traveling when it left the ball in the air.

XI

ERRORS OF BEGINNERS IN SERVICE

THE most common errors of service among beginners all seem to come from not throwing the ball up high enough. At the very start, many novices are inclined to serve underhand, and many girls continue to do this long after passing the novice stage. I have in mind one woman player, a former champion of America, who still to this day serves underhand in tournament matches and seems to get away with it. But such a delivery robs the service of all possible attacking power, and only in very rare cases has it ever proven successful.

But simply serving overhead is not enough in itself; the ball must be hit from high up in the air, and this brings up at once again the question of the long grip on the handle of the racket. No one can take a short grip on the racket and reach very high for the service, yet every possible inch is needed to get the necessary angle over the net to make the ball travel fast and still come down soon enough to strike inside the short service court.

It is even necessary for the player to get up

on his toes to add a few inches more to his reach when he serves the ball. Look at any snap-shot of McLoughlin, perhaps the greatest of all servers, and you will find that at the moment he strikes the ball, he is not only balanced on the extreme point of his left foot, but has turned his body half way around and raised the right shoulder as far as possible simply to increase the limit of his reach.

Oceasionally you will find a fairly good player who holds his racket properly at its full length and then bends the wrist or elbow too much and loses some of the height that this long grip should give him. To strike the ball too far from the body also makes the player bend his wrist to bring the racket into line and thus lose some of the muchneeded height.

Much depends on throwing the ball up directly over the head or right shoulder. Out to the right it makes the player lean too far to reach for it, and this tends to throw him off his balance as well as shortening the reach. (See plate 29.)

But it is just as bad to throw the ball back too far, so that the server tips over backward as he strikes. It is necessary to put all the weight of the body into the stroke in order to secure good power in the delivery, and the instant the body is bent so far back that it cannot lurch at the ball as it is hit, the blow is robbed of half its sting.

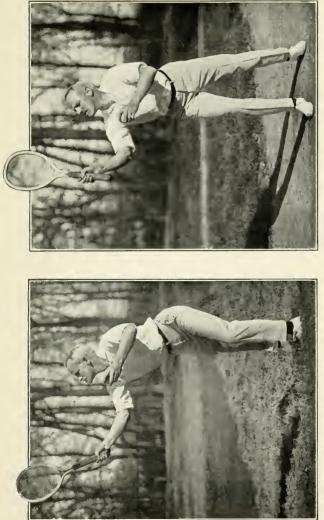


PLATE 29

PLATE 30

COMMON ERRORS OF BEGINNERS IN SERVING

Leaning out to the side like this throws the player off his balance and prevents follow-through. The striking-point is too low also.

Striking out in front with short grip and the wrong foot forward rob this service of all power. In all respects, this position is bad. Now, note the effect of throwing up the ball too far forward. The rules provide that the server cannot step on the base-line or over it until after the ball is hit, so if the ball is far forward of the player's position, he will have to reach out and lose his balance or make a foot-fault. No matter how long the grip, nor how full the swing, one cannot make a good service far out in front, for the arm has passed the top of its swing before it reaches this point and has started already to come downward, so the ball has a tendency to go into the net if hit hard from out in front.

I have seen some beginners and other poor players who have had more experience try to overcome this effect by bevelling their rackets backward, in the hope that a glancing blow would counteract the effect of the downward angle of the stroke. But this is a poor substitute at best and brings with it fresh troubles, for the under-cut that such a stroke produces makes the ball travel slower and stay up longer in the air. Taken with the lower height from which the ball is hit, this makes it doubly difficult to serve into the court at all.

From every point of view then, it is advisable to reach as high as possible and with the racket as straight as possible over the head and right shoulder. The more directly over the head the ball can be actually hit, both forward and back-

ward as well as sidewise, the better will be the chances of making an effective service.

Another bad error of beginners is that of swinging the racket around the head, rather than forward and backward, and this is the same fault that golf teachers find so difficult to eradicate from beginners in that game. The forward swing of the racket must be as directly as possible in the line that the ball is to travel, and the weight should be swung along the same plane also to accelerate the swing and add momentum to the racket. The only exception to this rule of swinging in direct line comes at the moment of impact when the racket is deflected to deliver a slightly glancing blow, somewhat exaggerated in the American twist deliveries.

Most beginners have the bad fault of being over-anxious to serve hard at first and they do not realize that this is most often the cause of their many faults. It is no easy task from even a high position to hit the ball hard and still bring it down to the ground in time to strike in court, and it is far better to make the service with less speed at first until the novice gets the stroke well under control, before any effort is made to add speed to the delivery.

Success in serving fast depends mostly on the ability of the player to get his racket around and slightly over the ball so that the twist will make it drop fast. To hit straight and fast with no spin at all will seldom make the service good, but this twist is not easy to get at first. Later on, it becomes very simple and requires little or no extra effort.

The young player should never be ashamed to serve his second ball very slow. Many novices make double faults galore because they feel that a soft second service is a sign of weakness and strike their second ball as hard as their first. To the eyes of an experienced player, these double faults are a far greater sign of weakness than the slow second service. Even the novice should be able very soon after he begins to play to serve his second ball into court every time. A double fault is doubly bad because it discourages the server by not giving him a chance to win the point.

The beginner is not expected to play against an experienced player, and if he does, he will not be ashamed of being beaten. If the weak second service is punished by hard hitting because it is so soft, this can only be done by a player of some experience, and by the time the beginner reaches the corresponding degree of skill, he will have learned to make his services harder and place them better to prevent this.

The game is very well balanced, and among beginners the weak second service is not dangerous; when the opponent plays well enough to kill such

a ball he is in a different elass, and the server must improve his whole game equally with his service in order to keep pace with him.

It is a common error of beginners to rush forward into the court each time after serving, and this habit frequently gets them into trouble. To play the net game—that is, to volley the first return of the antagonist—of course requires a quick run to the net after serving, but this is a game for an experienced player only, and it spells disaster for a beginner to try such methods. He should learn to crawl before he tries to walk, or to run, as in this case.

Unless one rushes all the way to the net, to within say ten feet of it, it is better not to run in at all, for it is very awkward to have the ball drop at your feet. The next stroke can always be made better if the player runs forward to meet the ball than if he stands still or is possibly moving backwards when he strikes, so the position after serving should be either all the way up to the net, or farther back than there is any chance for the ball to come.

It is an easy matter to run forward to meet the next ball when the spot it will strike is seen. Except for an occasional "short ball" play, which is very difficult for a beginner to make, the server is always safe at the base-line after serving, if he will keep in action ready to spring forward at once for a

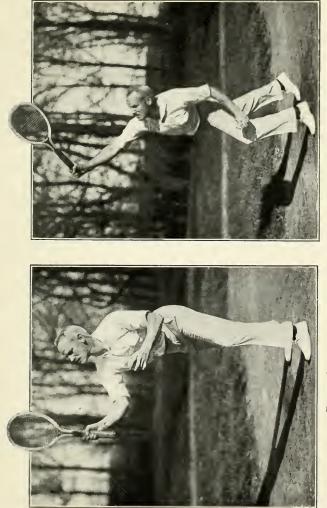


PLATE 31

PLATE 32

MORE MISTAKES OF NOVICE SERVERS

Here the player is trying to hit the ball far out in front, with a short grip and no swing. Such a service could have little power.

Bending the wrist so the racket makes this sharp angle, and leaning far forward before the ball has been hit, only serve to lessen the reach.

short return, and he will be better able to make a good stroke from this position, as he will then be moving forward when he strikes.

The most common errors of beginners in service, the pitfalls the novice should avoid, might be summed up as follows:

Don't step on the line in serving nor step over it until after the ball has left the racket; this is a cast-iron rule of the game, not simply a piece of advice.

Don't throw up the ball to one side or too far forward, for it must be hit straight overhead to make a good service.

Don't try to hit the ball with a short grip or with a bent arm or wrist, for you need as much reach as possible except for the American twists.

Don't bevel the racket backward to overcome the effect of hitting the ball out in front of the body; correct the error by throwing the ball farther back.

Don't try to make a fast service with a straighthit ball, for a twist is necessary to overcome the tendency for the ball to travel too far and make a fault.

Don't swing the racket sidewise around the head in making the service; keep its swing as much as possible in line with the flight of the ball.

Don't try to serve too hard at first, and don't be ashamed of making the second service slow enough to be certain of striking in court.

Don't make double faults—that is a deadly sin that even beginners cannot afford to commit.

Don't rush forward into the court after serving, unless you intend to go all the way up close to the net to volley the next return.

XII

THE FIRST RETURN OF THE SERVICE

THE striker-out in lawn tennis, that is, the opponent of the server, who must make the first return of each series, is heavily handicapped by the rules of the game. He is forced to stand back and await the attack of the server which is becoming each year more aggressive because of the improvement of the twist services. He is forbidden to volley the ball and his first return must often be made under the disconcerting conditions of an opponent thundering up to the net behind a twisting service that makes the ball curve in the air and bound crooked.

This advantage of the server over his opponent in the opening duel is responsible for the records which show that a very large proportion of all games in tournament tennis are won by the side having the service in its favor.

In order to offset this advantage and to get the ball into general play so that the striker-out may get back on even terms with his adversary, every ingenuity of the player must be brought into play. But at least he has one thing in his favor, for the server is limited closely in the area that he can use for placing the ball, so the striker-out need not move far out of his waiting position in order to reach the ball.

But every precaution must be used to anticipate the service. Even though the service-court is small, it is no easy task to cover all of it, and the striker-out should be keyed up to the highest pitch for instant action. The waiting, expectant position requires the legs spread well apart, the body bent forward from the hips and carried up on the toes, while the racket should be balanced in front, with the idle hand braced against its "throat" so that it can help start the back-swing in any direction that the approaching ball requires. (See frontispiece.)

Not long ago, an inexperienced player told me that he often found it necessary to play a backhand stroke with his left foot forward, because he did not have time when surprised on that side, to shift his position to the correct one with the right foot forward. When I watched him play, I soon discovered the reason for this blunder to be in his faulty position of anticipation.

He was constantly being caught in the wrong position for a stroke because he did not return to the correct waiting position after each play. He would make a forehand stroke and then wait for the next with his racket at one side and his left shoulder toward the net. From such a position it was impossible to shift quickly enough to the backhand position for the stroke, and the ball was hit too often with the wrong foot forward to save time.

Instantly that any play has been made, no matter whether it be a forehand or a backhand stroke, the player should return to the proper waiting position, and this is also the correct position to anticipate the first return of the service, a position that permits the player with almost equal facility to make either a forehand or a backhand stroke. The photograph that is reproduced at the beginning of this volume will show better than words the correct position to adopt, and, if this is closely followed, even a beginner cannot be surprised by any return so that he is unable to step into the striking position at once for the stroke required.

You cannot strike from the waiting position, but on the other hand you should never wait in the striking position.

The player should not be drawn into a set position that is useful for only one kind of stroke until he is certain that this will be the next stroke required of him. This is equally true as regards the position in court as well as the position of the body. The average beginner is afraid of his backhand strokes at first and he is inclined to get out of

position in the hope of anticipating the next return.

Sometimes this is carried so far that the player will lean far over to the left to prevent the opponent from placing a ball on his backhand side, but this is only an encouragement to disaster. If the opponent is able to place at all well, he can easily put the ball so far over on the forehand side that it will be impossible to reach it, and score an easy ace as a result. The same error can, of course, be committed on the other side by the player who prefers backhand to forehand strokes, but this occurs much less often.

One should not attempt at first to get great speed on the first return, and, if the server does not run up to volley your return, speed will not be necessary. A long, deep shot that is fairly low and strikes well back near the base-line is as good a return as any, and the beginner can gradually learn to control the ball enough to place such a return into one of the farthest corners of the court. The backhand corner, that is, the corner at the other man's left, if he is a right-handed player, generally offers the best opening, and other things being equal, is most often selected for attack.

It is when the server runs up to the net to volley, however, that the greatest embarrassment comes for the striker-out. Then he must make his first return lower and more aggressive, or the point will be lost on the first volley. A low, dropping return, even though it be comparatively slow, will always prove a most difficult one for the volleying server to handle at the net and, if this is directed to one side or the other, it may prove a "pass."

Expert players try for passes almost every time that the server rushes up to volley, but they are the hardest strokes of the game to execute, so that beginners cannot often succeed in making them. But if any player will keep his nerves steady and ignore the rushing of the other man enough to place his first return as he intends, passing strokes are not as difficult as they seem. It is only necessary to direct the stroke toward the side of the court and to keep the ball low over the net, so that the adversary cannot kill it with his first volley, in case he does succeed in reaching the ball when it does not pass him clean.

But sometimes the adversary volleys too well to permit you to pass him on the first return and then the best chance is to lob if he runs up to the net. A well-placed lob is often a strong attack, and the server who rushes up to the net to volley frequently finds himself in difficulties when his opponent puts up a deep lob on his first return. To lob short is fatal, of course, as the man at the net will then be in position to smash the ball, and he is pretty certain to kill it without difficulty.

The same rule that applies to practically all

other strokes of the game, is equally forcible when applied to the first return. The instant the stroke has been made, the player must return to the playing center to be ready for the next, and this without waiting to see the result of the shot he has just made. No matter whether the first return has been a lob, a deep drive or an attempt at a pass, the player should immediately prepare for the next stroke.

The playing center of the court is not the geographical center, so to speak. The actual center of the ground bounded by the court-lines is just about the worst spot to stand in, for there the player is most likely to get the ball at his feet, and this is the hardest position of all from which to make a good return. He must be farther forward to volley safely or farther back if he intends to play the next stroke off the ground.

The safest point to use as a base from which any stroke can be reached is the middle of the base-line, unless you want to volley, and then it should be about ten or twelve feet behind the center of the net. One should never be caught at a standstill in the actual middle of the court, and after making the first return, the striker-out should immediately run to one of the two bases for operations described above.

From the middle of the base-line or a few feet in front of or behind that, according to whether

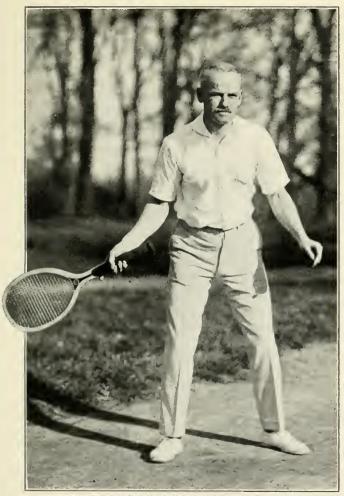


PLATE 33. WRONG POSITION FOR FIRST RETURN Standing this way, with legs and shoulders squared around toward the net and racket balanced at the side, is but an invitation to disaster. Note also the short grip on the racket and compare with correct position shown by frontispiece.

your opponent hits the ball hard or not, the player can always run forward to reach any return, and then meet the ball with his weight moving toward the ball so the stroke will be a powerful one.

There are some points that should always be kept in mind regarding the first return of the service, and perhaps the following are the most important:

The waiting position of the player, with body well poised for instant action and racket balanced in front of the body, is the first essential to success.

Instantly after making the first return, the player should return to his waiting position again, and he should hurry to the middle of the base-line, or to the middle of the court about ten or twelve feet from the net.

The player should never come to rest in the center of the court, that is, near the service-line.

You should never be caught with shoulder to the net and racket at one side, committed to playing a certain stroke, for it will be too late then to shift for the other.

Don't try to cover up a weakness in either backhand or forehand strokes by leaning to one side or the other of the proper position in court. This encourages the antagonist to score an "ace" by placing the ball on the other side out of your reach.

When the server does not run in, the first re-

turn should be a deep drive into the back of the court, preferably into his most exposed corner.

With the antagonist at the net ready to volley, it is necessary to keep the first return low and, if possible, to pass him with a return placed near one of the side-lines.

When it is not possible to pass the opponent, the ball can be lobbed over his head, but under no circumstances should such a lob be short.

XIII

VOLLEYING AT THE NET

OLLEYING is as distinct a department of the game as is the service, and requires skill a little farther advanced than the first stages of the beginner. It will be ample time for taking up the volley after the ground-strokes have been practiced enough to become fairly familiar. As a rule, the volley is a quicker stroke and does not allow the player so much time to prepare, so at first it seems doubly difficult to beginners.

There are two distinctly different types of volleys which have sharply defined lines to identify them. Firstly, there are the volleys of a horizontal ball, one that is coming straight at the player, and generally pretty fast; and, secondly, the volleys of dropping balls, which are most often distinguished as smashes. These smashes and the overhead volleys of the similar type will be treated in a separate chapter by themselves, but the horizontal strokes deserve special attention first.

For this kind of play there is only one safe position for the player, and that is close up to the net. English players sometimes volley low

from near the middle of the court, but this is a most difficult stroke to execute at best and of very doubtful value after it has been made. For beginners anyway, as well as for most of the experienced players, the only safe position from which to volley horizontally is within fifteen feet of the net, and the stroke becomes easier the nearer to the net you are when the ball is met.

This close position, of course, prevents any possibility of making a ground-stroke, so that the volleying game becomes quite distinct from ground-stroke play. The player can move from one position to the other, of course, and shift his style of play for the moment from one to the other, but once having assumed the volleying position, he must generally finish out that rally at the net. It is necessary, therefore, to understand how the different kinds of volleys are made before any attempt is made to go to the net.

The correct volleying position is from six to fifteen feet back of the net, but it also has its own relation to the position of the ball as well. The volleyer should be directly opposite his opponent only if the ball is in the center of the court. The playing center is not always the middle of the net, for if the ball is far out to the right in your opponent's territory, your own court will be open to attack on the same side more than on the other, and you should move over a little more in that direction to protect yourself against the next stroke.

Having assumed the right position in court whether by running up immediately after serving or by gradually working up during a long rally, makes no difference—the actual position of the body differs somewhat from that assumed for ground-strokes. The volleyer does not have time to change position from backhand to forehand volleys or *vice versa*, and he must be ready at all times to handle either kind of a ball. His position at the net therefore must be squared around more, his feet almost parallel with the net.

For the fastest kind of volleying, it is better to have the right foot extended slightly behind the left, but with the legs spread well apart and the weight carried low to give the player the advantage of an instant start in any direction. Not to keep one foot a little behind the other makes it slower to get started back for a lob, and the opponent can often catch a volleyer napping at the net and win an easy point by lobbing over his head, if the position of his feet does not guard him against such a surprise attack.

To anticipate a sharp drive at either side, the volleyer must be ready to jump sidewise on the instant and the racket must be balanced in front of his body, as when waiting for the return of the service. The "splice" or "wedge" at the

throat should be balanced in the left hand well out in front and the player will then be ready to shift it to either side without a second's hesitation to meet the ball. Bent knees and the weight carried up on the toes, as in the other strokes, are also essential to quick starting. (See frontispiece.)

When the direction of the oncoming ball is known and the actual stroke starts, the racket is swung out on that side of the body and back with a short, quick swing that is less deliberate and more snappy than that used for the groundstrokes. The back-swing is shorter because there is less follow-through required and less time to make it. The racket is kept nearly horizontal, except when the ball comes higher or lower than the waist, and then, of course, its angle must be accommodated to the height of the ball.

The face of the racket should be bevelled slightly backward to strike a glancing upward blow, but the amount of this angle depends largely on the height of the ball. For a low ball, which is below the level of the net when hit, the racket must be bevelled enough to raise it back over the net, while balls that are met well above the height of the net require little or none of this cut, for the racket can meet them almost square.

The stroke itself is much shorter and sharper than a ground-stroke. There is less swing, both





PLATE 34

CORRECT POSITIONS FOR HORIZONTAL VOLLEYING

For the backhand stroke the shoulders must turn to give freedom for the playing-arm, but the arm and racket are still nearly horizontal.

PLATE 35

For the forehand volley the racket should be nearly F horizontal, and bevelled slightly backward, while the shoulders should be bent well forward.

forward and backward, and there is less followthrough. The ball is met with an almost stiff wrist, the flexibility of the ground-stroke not being required here. The short swing is more like a sweep than a blow, but the racket follows only a short distance, being quickly swung back into line and recovered in the former position for waiting, balanced in front of the player. The body should be swung forward slightly as the blow is struck, but the squared position makes it impossible to follow far after the ball without losing the balance. (See plates 34 and 35.)

The grip of the racket for volleying is almost the same as for ground-strokes. For the forehand stroke, the hand takes the same position on the handle, except that the bevel of the racket inclines the head and twists the handle a fraction more.

For the backhand volley, the thumb should be extended up along back of the handle for support, just as in the ground-stroke, but when the face is bevelled back for a low volley the racket will have to be turned slightly more.

It is always dangerous, of course, to stand too close to the net, and beginners who find it difficult to get back fast enough to smash lobs will do better to stand three or four feet back of the position from which they expect to volley, and then step forward to meet the ball when the time comes

to make the stroke. Stepping forward like this as you strike increases the power of any volley stroke, as well as acting as a safeguard against overhead attack by a lob.

Special effort should always be made to meet the ball at a point higher than the net whenever possible. A volley becomes more defensive than aggressive when struck from lower down, as in that case the ball must be lifted back over the net, and this robs it of its attacking power. The volleyer should be careful to jump forward therefore to meet the ball the instant he knows where it will come.

Regarding the placing of volleys, everything depends on the position of the antagonist. Firstly, they should always be deep back into the other court, unless a short stroke is certain to end the rally. To let the opponent reach the ball in close to you spells disaster every time, for the volleyer has very little time to prepare for his stroke under the most favorable conditions, and, if the opponent is close to him, this will be so short that he must often miss the stroke from lack of time to swing on the ball even though it comes straight at him.

The unexpected point is always the best attack against the opponent, but, other things being equal, the extreme left-hand corner is perhaps the most vulnerable spot. From that position, it is most difficult to pass a volleyer at the net, and this offers the most profitable point for attack, as a rule.

But there are other considerations than power of attack. Often a volleyer himself is in trouble and needs defence. He may be hard pressed, jumping from side to side so fast that he is in imminent danger of being passed on the next play.

Then the middle of the court is the safest place to direct a volley stroke. From the middle of the court, the opponent will find the angles for passing more difficult than from the sides and a deep volley down the center of the court to near his base-line is generally a safe return.

The ball can be directed best with the swing of the arm, but the wrist also can be bent slightly and deflect the ball to one side or the other at will. Some good players swing the whole body around to place a ball across the court on the volley, the Englishman using his whole shoulder and side for this purpose, but this style generally defeats its own object by showing the opponent which way the ball is going.

Summarizing the points to be kept in mind by the beginner in learning to volley, the following seem most important:

Horizontal volleys must always be made from

close to the net, between six and fifteen feet being the only safe position.

To prevent being surprised by a lob overhead that might score, it is better not to stand nearer than ten feet, and then to step forward to meet the ball as it comes.

Stand nearly square with the net, preferably with the right foot extended slightly behind to start back quickly if necessary.

The legs must be spread well apart, the body bent forward at the hips, the knees bent and the weight up on the toes.

The racket should be balanced in front of the body at all times in the volleying position, except when actually making a stroke; volleys must be made quickly, and there is little time for shifting.

The back-swing is short, and the actual stroke is made with a comparatively stiff wrist.

For low balls, the face of the racket must be bevelled slightly backward to lift the ball back over the net; except for these, the grips are the same as in the ground-strokes.

The best point of attack for a volley stroke is generally the extreme backhand corner of the opponent's court, although the other side may be more open at times.

Short volleys are always dangerous unless there is room to win outright on the stroke; if the opponent gets in close to the volleyer, there will probably not be time enough to reach his next stroke.

For safety at the net, the volleyer should place the ball down the middle of his antagonist's court; from that angle it is most difficult for him to pass you.

XIV

SMASHING AND OVERHEAD VOLLEYING

THE distinction between overhead volleying or smashing in lawn tennis and the horizontal volleys that were described in the last chapter, lies chiefly in the angle at which the ball is taken. For these strokes the ball is met higher up and driven downwards. With the head of the racket above the arm and shoulder, ready to meet a dropping ball, the stroke is completely altered from that used in horizontal strokes, and even more closely resembles the blow of a woodsman's axe than the service.

There is much more freedom in this position and a longer swing and follow-through are permitted. For the smash the player can put all his power in the stroke and hit the ball as hard as he is able. The horizontal volley is apt to be a cramped stroke, while overhead the play is freedom itself.

Smashing is possible from any part of the court, although its success generally depends on being inside the service-line. The player cannot select his own time or place for a smash, however. He can only play the stroke when his opponent has lobbed to him, and this may seldom occur. If the lob is short, there is no question that the smash is the correct play, and when the ball falls close to the net, a smash should almost invariably win the point outright.

But a lob that carries the ball well back toward the base-line is a doubtful one to smash. Back of the service-line, the chances of missing the stroke increase rapidly with every foot farther from the net that the ball comes down. However, a player forced back in his court to a point where it is dangerous to smash can still use the overhead volley with safety.

These overhead volley strokes are made with much the same motions as the smash, except with less speed or abandon and with more caution to control the ball. Drawn back all the way behind the shoulders, as in the overhead service, the racket makes a terrific swing for a full smash, but when the player is doubtful of success and wants to be more cautious in his stroke, he will lessen the back-swing, and stop the racket behind the head, hitting with a slower motion.

Sometimes a slight bevel on the face of the racket, to overcome the dropping angle of the ball, will lessen the danger of missing from far back in the court.

In either case, the stroke must be made high up like the service, with the playing-arm well extended

to reach as high as possible. It is always better to wrap the racket around the ball somewhat, striking with a slight cut that makes the ball spin, as in the service, and with the same effect of bringing the ball down to earth quicker.

The finish of the stroke differs according to whether it is simply a volley or a smash. With the former, the racket is stopped out in front of the player, about opposite the waist as a rule, and it is quickly recovered at the finish to a safe position for the next stroke, no matter what may come. For the smash, however, the racket is allowed to follow after the ball as far as it will and generally ends close to the ground at the end of the swing.

The smash is primarily a killing stroke. It is intended to end the rally every time, and the player, if he is fairly close to the net, calculates, as a rule, that he will be able to kill the ball with that stroke. He does not expect another return and the smash is therefore played with great abandon. Some players even lose their balance at the end of the stroke and make little or no effort to recover position to be ready for another, in case the unexpected should happen and the adversary return the ball they intended to kill. These are poor tactics, however, and dangerous always.

A smash once started should never be checked, and the play will be ruined if any effort is made to





PLATE 36 PLATE 37 OVERHEAD VOLLEYING AND SMASHING Note the difference in the bend of the elbow and in the forward swing of the body. For the smash, one must reach higher

(as in Plate 37) and hit the ball further back.

moderate its power. No hesitation is possible in this stroke, and truly here he who hesitates is lost. Whenever the smash is used it must be carried through to its proper end and no effort be made to ease up in the stroke or to check the racket before its full swing has ended.

The position of the player for a smash or an overhead volley is very important. He must be directly under the ball for a smash, and nearly as far forward for the volley. Nothing will ruin an otherwise good smash so quickly as to stand too far back for the ball. As in the service, this position is almost sure to bring it down into the net instead of over into the adversary's court.

For a hard smash, the player should stand so directly under the ball that, if he should miss it, the ball would fall on his head, but the whole body should be bent somewhat forward so the head would be slightly in front of the rest of the body. For a less severe volley, the ball can be slightly in front of the player's position, but under no circumstances should it be forward enough to make him reach out far for it. This is a fault that is almost certain to bring failure.

A smash depends almost entirely on speed for its success, and it is generally not necessary to place the ball to the sides of the court. Indeed, many good players believe it quite as effective

to smash straight at the opponent as to smash to the side of the court, and this brings less risk of error by putting the ball out of court.

One of the most common mistakes of beginners is to try to smash every high ball that they can reach. The smash is a stroke that is used far more than is necessary, both because it wastes the player's strength and because it often entails an unnecessary risk of error. Hosts of overhead balls, even short lobs at the net, can be killed quite as effectually with a well-directed volley as by a smash, and this stroke results in many less errors.

Doherty, one of the greatest players the world ever saw, was a model of this kind of play. With the least possible effort, with no fuss and feathers, he would volley short high balls off into impossible corners of his opponent's court with great certainty and a wonderfully small percentage of mistakes.

Most of the smashing seen among poor players is mere gallery play, and generally makes the man who likes to show off a consistent loser when matches are played.

It is a safe rule to remember, when you have a dropping ball to handle, that it should be smashed only when you feel certain that you will not miss the shot. If the player is off to one side of the court, even then it is not necessary, as a sharp volley to the other side will be just as effective and more easily made.

If the opponent is close to you, play the ball straight at him fast and he will have little or no chance of returning it, but if he is at the back of his court and ready for a ball in the center, smash to the edges if you feel sure of the stroke, or volley off to one side.

On a deep lob, the smash is almost always dangerous, and a deep volleyed return will generally give you another chance at the ball, with perhaps better chances for success on a shorter return. The player who takes few risks with deep lobs and patiently waits for an easy ball to kill generally wins out in the end, while the dashing swashbuckler who wants to bury every ball under the sod is always found among the losers.

Smashing and overhead volleying are advanced work for beginners, and those who study these strokes should keep these salient points constantly in mind:

Smashes and overhead volleys must be made with the racket above the arm and shoulder, and must always drive the ball in a downward direction.

They may be played from any part of the court, but the chances for success, particularly in smashing, decrease very rapidly as the distance from the net increases.

It is always dangerous to smash when back of the service-line, and generally safe when less than fifteen feet from the net.

The player should stand directly under the ball for a smash, and very little back of it, if at all, for an overhead volley.

The smash depends entirely on speed for its success, and if the opponent is close to the player he can smash directly at him just as successfully and with less risk.

A smash should never be checked in any way; all the weight and power of the body should be put into the stroke, and the racket must be allowed to follow the ball to the end of its swing. XV

Errors of Beginners in Volleying

PERHAPS because the strokes are more difficult, volleying discloses more errors among beginners than do ground-strokes, as a rule. In addition to nearly all of the rules that apply to the ground-strokes, there are many other restrictions that must be observed to produce good results when volleying the ball.

In the first place, the player has less time to prepare for a volley stroke, except when it is to be made from a falling ball that has been lobbed high. He must be even quicker in getting his racket into position, and while in the volleying position he must always keep ready for any ball that may come to him on either side.

In discussing the errors of beginners, in groundstroke play, I have already spoken of the danger in getting set in one position, with either shoulder toward the net and the racket at the player's side so that he is committed to playing only one kind of stroke quickly.

This applies also to the volley, and it is even more dangerous to blunder this way when close to the net. To turn so that only a forehand stroke

or only a backhand stroke can be played from the position assumed, means to court disaster if the opponent is wide awake.

Before every stroke and after every stroke, no matter whether it be a volley or played "off the ground," the novice who would learn to play well must return to the waiting position in preparation for the next play. (See frontispiece.) This is not advice for the expert only, for it applies with equal if not greater force to the merest novice.

The danger of being caught unprepared does not rest on the ability of the adversary, but is equally present when both players are beginners, and the warning repeated above cannot be emphasized too strongly.

The same errors of short grip, bent elbow, flat feet, stiff knees and erect position all apply with equal force to volley strokes, but some of the rules for ground-strokes do not hold good. Except for overhead smashing, the swing must not be so long, nor the follow-through so full as for groundstrokes, and the player must meet the ball with more reserved force. A better control over the balance is also necessary, for the next stroke will probably come much quicker than if the longer drive from the bound were made, and the volleyer will have less time to recover.

For horizontal volleying, the movement of the arm must be shorter, both in the back-swing

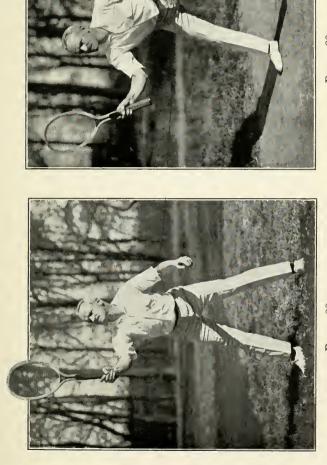


PLATE 38

PLATE 39

BEGINNERS' ERRORS IN VOLLEYING

With feet and shoulders squared around in this style and racket out in front, there is little chance for making a good volley.

The forward stoop, short grip and striking position far out in front again spoil all hope for success here.

and in the actual stroke itself. The body also does less work and the wrist is used much more, for on the snap of the wrist depends a good deal of the speed in horizontal volleying. Nor should the player turn his side to the net to volley as he does for the ground-stroke, for this is only needed for a full swing of the arm and shoulder and the low volley does not require it.

However, this idea must not be carried too far. To simply "butt" the ball over the net defensively means to ruin the stroke. For any degree of success, a sharp quick movement of the forearm and wrist is required and a shorter swing of the upper arm and shoulders. What the novice should guard against, however, is making a long, powerful swing, with the side turned toward the net, and following through with the body until the balance is thrown far forward. These are correct for ground-strokes, but not for low volleying.

A constant danger to beginners in volleying is the lack of length in their strokes. They hit the ball so short that the antagonist gets in so close to them that it is almost impossible to anticipate his next return. Among even fair players this is a weakness that is never quite understood. They fail in net play and do not understand the reason for it.

Instead of the strength of the opponent in pass-

ing the volleyer, it is in most cases—that is, when he has assumed the correct waiting position and is still passed—due to his own lack of length in the previous return. The chief defence of the volleyer depends on hitting the ball deep into the other man's court, as you must have time to anticipate his next play, and you cannot if you let him get in close to you to hit the ball.

It is always dangerous for the beginner to volley on the run, and even among experienced players their strokes almost invariably suffer when made in this way. To be sure, in fast play it is often necessary to strike while moving and experts become accustomed to accommodating their play to this action, but wherever possible they prefer to get settled before striking. While it is advisable for them, it is almost imperative for beginners. Anyway, until he becomes fairly proficient in the volley stroke, the player should calculate to start quickly and move fast so as to stop before the actual stroke is made.

Another common error of beginners is being caught too close to the net. This is another case in which the average player, not only the beginner, is mistaken as to the cause of his loss when his opponent wins by lobbing over his head safely. It is very easy to be drawn in close to the net, as good volleys are much easier to make from there. Success generally follows the volley from close up, and the beginner is quickly drawn forward in his enthusiasm to kill ball after ball from this position.

But every time he creeps in to within five or six feet he is in danger overhead, and sooner or later, if the adversary knows a little about the game, he will lob over his head for a certain ace.

As to the method of holding the racket to volley, you should avoid getting the wrist above the racket head, although on balls below the knee it is generally necessary to do so. However, it is a tactical blunder ever to volley a ball as low as this. The player should dart in closer and meet the ball before it has fallen so low, or stay further back on such a dropping ball and play it on the bound.

The wrist should be at least level with the handle of the racket, or in most cases slightly below it. However, it is equally bad to bend the wrist so sharply for a ball below the height of the shoulder that the racket is nearly upright, as this weakens the stroke by the crook in the wrist.

Avoid also meeting the ball directly in front of the body. As in ground-stroke play, nothing could more certainly ruin all chance of making an effective stroke. Not only is the arm badly cramped in this position, but the interference of the legs prevents any swing at all.

Another deadly sin of volleying, as in all other strokes, is that of moving backward as you strike. On the contrary, the player should invariably move

forward as the blow is delivered, and this applies to all kinds of volleying as well as to ground-strokes. In horizontal volleys the forward motion is largely confined to the swing of the shoulders, but in overhead work, as in ground-strokes, the whole bodyweight must be shifted forward as the stroke is made to get the best results.

In smashing, the ball must not be met forward or behind the player's position, but directly overhead. To hit it too far forward generally results in netting the ball, while a stroke made when the ball is back of the player is almost certain to drive it out of court, if indeed the stroke is not missed altogether.

Most beginners try to smash with too short a swing, just as they play ground-strokes at first. A full back-swing like that used for the service is needed, and, unless you give the stroke this, it will lack snap and dash. A smash without dash is no more than an ordinary volley and often less effective. Never try to hold back a smash; let out all your force and carry through the racket to the end of its swing, even if it hits the ground at the finish.

But the player must not lose his balance at the end of the stroke so that he cannot recover at once. A common error of beginners is to smash wildly and abandon all efforts to recover in the belief that the smash is certain to end the rally, and that another stroke will not be necessary. As a matter of fact, very frequently the opponent re-

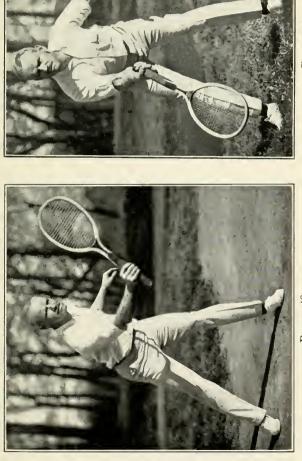


PLATE 40

PLATE 41

MORE VOLLEYING ERRORS OF NOVICES

Here the head of the racket is so far above the arm that the stroke is weakened by the angle at the wrist. Short grip again noticeable.

For a low dropping ball, it is often necessary to volley upward but the racket should never be in front of the body like this.

covers even the hardest smashes and the ball sometimes comes back when least expected.

Until the ball is seen to actually touch the ground the second time or to go out of court or into the net, it must always be presumed to be in play and the wise player will invariably prepare for another stroke.

The watchword of success in smashing, as in other departments of the game, is: "Don't stand and watch the result of your stroke; get ready for the next immediately, no matter how improbable you may think it is that another will be necessary."

Summarizing the most common faults of beginners in volley strokes, the following seem to stand out:

Don't get set in any position that allows only one kind of stroke; immediately after each stroke resume the waiting position that allows you to play either backhand or forehand with equal facility.

Don't use a full swing for horizontal volleying as in ground-strokes; depend on the forearm and wrist to do the work and cut the swing short.

Don't "butt" the ball short over the net, for this courts disaster; if the opponent gets in close to you, it will be easy for him to pass you at the net.

Don't try to volley on the run; start quicker and get settled in position before you actually make the stroke.

Don't get caught in too close to the net yourself; this will give the other man an easy chance to lob over your head for an ace.

Except for very low balls, keep the wrist below the head of the racket for all volleys.

Don't volley the ball directly in front of your body; keep it off to one side, but do not turn the body round with the shoulder toward the net.

Never move backward as you strike; this will ruin any stroke, volley or otherwise.

Don't try to smash with a short swing, or to hold back the stroke when it is being made.

Don't smash with the ball too far forward or back, nor too far off to the side; keep directly under the ball when smashing.

Don't stand and watch the result of any play; recover position at once and prepare for the next stroke.

XVI

LOBBING

A LTHOUGH placed last in the series of strokes for the beginner in lawn tennis, the lob is by no means the least important of the armory of the ambitious player. On the contrary, it is one of the most important strokes, particularly for the beginner, and should be studied in the early stages of learning the game.

Defence is of great importance in the game of tennis, and the very foundation pillar of defence lies in the lob. With a good lob, any player, be he beginner or expert, should be able to defend his position when pressed the hardest, and it is only when in close to the net that a lob cannot be used. From any part of the back of the court, a deep lob is almost invariably a safe answer to the hardest attack.

But the stroke must be deep to be of any value at all. Nothing is more suicidal than a short lob; it is as discouraging as a double fault, and generally just as costly.

But there is a right way and a wrong way to play the lob. The average beginner has an idea that any stroke that knocks the ball up into the

air is a good lob, and that neither form nor direction is required for the stroke. Nothing could be further from the truth, for a good lob requires almost as careful handling as any other stroke of the game.

Generally speaking, many of the same rules apply here as in the ground-strokes. The ball must not be taken in front of the body, nor with the wrong foot or shoulder forward. The body should be turned with the side toward the net to allow a full swing as in a good ground-stroke, and the same freedom of the arm and shoulder is required.

The lob is a slower stroke and much more deliberate than any other ground-stroke. The backswing is shorter and the body motion in the actual stroke less pronounced, while the follow-through is very much reduced. The racket should be dropped with the head distinctly below the wrist, and the stroke has an upward swing that is absent in the other ground-strokes. With the head of the racket hanging downward at an angle of forty-five degrees, the same free sweep of the arm is made, with the ball well off to the side so that the shoulder can be brought into the stroke.

Almost the same grips are used as in the groundstrokes. For the lob on the forehand side, the first knuckles are turned full to the front, and the wrist is turned a trifle from the normal position

Lobbing

for a forehand stroke, because of the lower angle of the swing. (See plate 42.)

The sweep of the racket must be long and smooth, not jerky like the stab of a chop-stroke. The ball is met with even less impact than in other ground-strokes and is swept away rather than hit with a sharp blow. The slower the stroke can be made, the better are the results likely to be. No other stroke in the game is made with such deliberate movements.

The most dangerous error for the beginner to counteract, however, is the desire to strike the ball from underneath and drive it straight upward in the air. On the contrary, the ball must be hit clearly from behind, with a forward sweep, the upward turn coming just before the racket meets the ball. The bevel of the face of the racket can be depended on almost as much as the upward swing to direct the ball high enough to pass over the opponent's head.

Except when it is played for the purpose of gaining time to recover position in court or to get a resting spell when the player is hard pressed, a lob should not be driven any higher in the air than is necessary to keep clear of the opponent's reach.

With the other man at the net ready to smash, which is generally his position when the lob is used, it is only necessary for the ball to pass a foot or two above the highest point he can reach by

jumping, and the lower it can safely pass him the better. If only a little out of reach, the stroke will have a flatter trajectory, more forward motion on the ball, and will greatly reduce the other man's chances of turning and running back to make the return.

The angle of the bound of a low lob also makes it much more difficult to return than a high straight ball. From every point of view then, it is desirable to keep lobbed balls as low as safe, and for this reason as much forward motion as possible should be put into the swing of the racket. If a purely upward swing is used for the lob, it will be difficult to avoid raising the ball unnecessarily high in the air, even when the low lob is very much to be desired.

For the backhand lob, the same general rules hold good as for the backhand ground-stroke. The body should be turned around so that the playing shoulder is toward the net and the feet are lined up almost in the direction that the ball is to be sent. As the upward swing of the racket requires it to start very low in the forward swing, the body should be bent somewhat away from the net and the left knee bends a little to let the shoulder drop. (See plate 43.)

With the racket turned slightly backward in the grip, as in the forehand lob, and the thumb extended behind its handle for support, the stroke

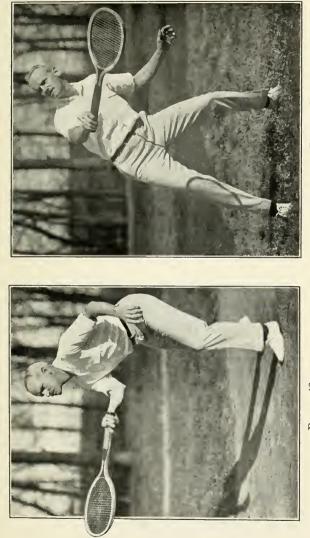


PLATE 42

PLATE 43

HOW FOREHAND AND BACKHAND LOBS ARE MADE

The body should be turned well around for the lob, with side toward the net. The racket also should have full sweep off at the side.

The right leg must be toward the net for the backhand lob, giving the playing-arm freedom, while the body bends slightly backward.

Lobbing

is inclined to be even a little more upward in direction than the forehand lob. The ball should be met further forward than on the other side, and this makes it more difficult to swing as straight and still lift the ball as in the other stroke.

The finish of the stroke in both cases is in an upward direction, and the racket should be allowed to follow after the ball as long as possible. The body swing cannot be pronounced, as the forward motion is not long enough. The elbow should be bent more than in the ground-strokes, but the ball must be kept well clear of the body.

Even after a lob, it is necessary as in every other stroke of the game, to recover position quickly and prepare at once for the next stroke no matter what it may be. It is as dangerous to stand and watch a lobbed ball sail through the air as it is to watch a drive until the opponent has returned it. In either case, you are very likely to be caught out of position and not ready for the next stroke.

Many a lob that was started with good intentions of being kept out of the antagonist's reach, is ultimately smashed hard in return. Except for very low lobs that are well timed and well placed so as to catch the opponent so close to the net that he is unable to back away fast enough to volley them, the chances are very strong that any lobbed ball will be returned and will come back fast.

The stroke itself is of necessity slow enough to allow the other man in most cases time to reach it, and it only depends on how deep the lob has been placed whether it will be smashed or returned only moderately hard on the next volley. In either case it behooves the lobber to hurry to his best defensive position immediately after every lob has been sent up.

As I have already explained, a short lob is like throwing the point away, but what constitutes a short lob is not quite so easy to state. Against the average player, any ball that will fall inside the service-line should be considered a short lob, and most players will have long odds in favor of their being able to kill the ball, if they can smash from within fifteen feet of the net. Many players are able to kill from even back of the service-line, or at least to smash hard enough to keep the lobber in constant trouble unless he gets better length than this.

To be out of danger, a lob should be well back of the middle line, and to be surely safe from hard smashing it should not fall more than ten feet inside the base-line of the court. Except when the opponent is caught "anchored" at the net and passed overhead with a low lob, any lobbed ball is defensive, and the lobber can hardly expect to win, except through an error by his opponent, until he is able to turn the attack against him.

Lobbing

A deep lob will often drive the other man back far enough to open his court for a drive on the next play, and the lob therefore will often turn the attack against a volleyer unless he is very quick at recovering his position at the net again after each smash.

The lob is better as a surprise stroke against a volleyer than as a regular diet. To lob repeatedly to your antagonist often means that he will soon become used to the stroke and, preparing himself in position and swing, will shortly be able to smash successfully. If he is given a lob only occasionally, he will be less likely to handle them well and they are more likely to be successful.

When the server runs in constantly to the net and takes a position very close up to volley, it is often a good plan to lob regularly to dislodge him; and such a campaign will often break up his net attack, so that he is forced to give it up. When he does stop running in, however, that should be the signal to stop lobbing at once and go to driving at his feet.

Placing a lob generally increases its attacking power, and the backhand corner near the base-line is almost invariably the best spot to aim for. It is doubly difficult to smash lobs over the backhand shoulder, so a lobbing attack in the backhand corner is always the hardest to meet.

Beginners when they study the lobbing stroke should keep before them the following points:

The lob is only useful when deep in the opponent's court; a short lob is suicidal.

One should lob high only when it is necessary to gain time to recover position in court or for a breathing spell.

Against a player at the net, a low lob will be doubly dangerous, as it will give him less time to back away to smash it, and it will also be harder to play from the bound.

The ball must not be struck from underneath, but from behind as in a ground-stroke, with a forward motion having an upturn just before the racket meets the ball.

The racket must be held at full length, the side must be turned toward the net, and the ball must be kept well away from the body in making the stroke.

The racket should follow after the ball as far as possible, but there is little body swing or followthrough in the stroke.

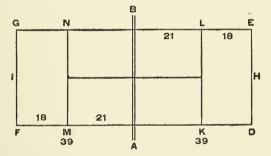
The player must recover position immediately after every lob and prepare for the next stroke, as another attack after a lob is even more to be expected than from any of the other strokes.

Except to break up the constant rushing of a server, do not lob too steadily; better save the stroke for a surprise attack and use it only for pure defence when in trouble yourself.

LAWS OF LAWN TENNIS

THE COURT

1. The court is 78 feet long and 27 feet wide. It is divided across the middle by a net, the ends of which are attached to two posts, A and B, standing 3 feet outside of the court on either side. The height of the net is 3 feet 6 inches at the posts, and 3 feet in the middle. At each end of the court, parallel with the net, and 39 feet from it, are drawn the base



lines D E and F G, the ends of which are connected by the side lines D F and E G. Halfway between the side lines, and parallel with them, is drawn the half court line I H, dividing the space on each side of the net into two equal parts, the right and left courts. On each side of the net, at a distance of 21 feet from it, and parallel with it, are drawn the service lines K L and M N.

THE BALLS

2. The balls shall measure not less than $2\frac{1}{2}$ inches, nor more than 2 9-16 inches in diameter; and shall weigh not less than 1 15-16 ounces, nor more than 2 ounces.

THE GAME

3. The choice of sides, and the right to serve in the first game, shall be decided by toss; provided that, if the winner of the toss choose the right to serve, the other player shall have choice of sides, and vice versa, or the winner of the toss may insist upon a choice by his opponent. If one player choose the court, the other may elect not to serve.

4. The players shall stand on opposite sides of the net; the player who first delivers the ball shall be called the server, and the other the striker-out.

5. At the end of the first game the striker-out shall become server, and the server shall become striker-out; and so on alternately in all the subsequent games of the set and following sets.

FOOT FAULT RULE

6. The server shall before commencing to serve stand with both feet at rest behind (i. e., further from the net than) the base line and within the limits of the imaginary continuation of the half court and side lines, and thereafter the server shall not run, walk, hop or jump before the service has been delivered, but the server may raise one foot from (and, if desired, replace it on) the ground, provided that both feet are kept behind the base line until the service has been delivered.

Official Interpretation of Law 6:

If a foot be lifted and replaced, there must be no change of position that can possibly be considered a step.

7. The service shall be delivered from the right and left courts alternately, beginning from the right in every game, even though odds be given or owed, and the ball served shall drop within the service line, half court line and side line of the court which is diagonally opposite to that from which it was served or upon any such line.

8. It is a fault if the server commit any breach of Law 7, or

if the service be delivered from the wrong court, or if the ball served drop in the net or beyond the service line, or if it drop out of court or in the wrong court. If the server in attempting to serve miss the ball altogether, it does not count a fault; but if the ball be touched, no matter how slightly, by the racket, a service is thereby delivered, and the laws governing the service at once apply.

9. A fault cannot be taken.

10. After a fault the server shall serve again from the same court from which he served that fault, unless it was a fault because he served from the wrong court.

11. A fault cannot be claimed after the next service is delivered.

12. The server shall not serve until the striker-out is ready. If the latter attempt to return the service, he shall be deemed ready.

13. A service or fault delivered when the striker-out is not ready counts for nothing.

14. The service shall not be volleyed, that is, taken, before it has touched the ground.

15. A ball is in play on leaving the server's racket, except as provided for in law 8, and remains in play till the stroke is decided.

16. It is a good return, although the ball touch the net; but a service, otherwise good, which touches the net shall count for nothing.

17. The server wins a stroke if the striker-out volley the service, or if he fail to return the service or the ball in play, or if he return the service or the ball in play so that it drops outside of his opponent's court; or if he otherwise lose a stroke, as provided by law 20.

18. The striker-out wins a stroke if the server serve two consecutive faults; or if he fail to return the ball in play; or if he return the ball in play so that it drops outside of his opponent's court; or if he otherwise lose a stroke as provided by law 20.

19. A ball falling on a line is regarded as falling in the court bounded by that line.

20. Either player loses a stroke if the ball touch him, or anything that he wears or carries, except his racket in the act of striking; or if he touch the ball with his racket more than once; or if he touch the net or any of its supports, or *the* ground within his opponent's court, while the ball is in play; or if he volley the ball before it has passed the net.

21. In case a player is obstructed by any accident, not within his control, the ball shall be considered a "let." But when a permanent fixture of the court is the cause of the accident, the point shall be counted. The benches and chairs placed around the court shall be considered permanent fixtures. If, however, a ball in play strike a permanent fixture of the court (other than the net or posts) before it touches the ground, the point is lost; if after it has touched the ground, the point shall be counted.

22. On either player winning his first stroke, the score is called 15 for that player; on either player winning his second stroke, the score is called 30 for that player; on either player winning his third stroke, the score is called 40 for that player; and the fourth stroke won by either player is scored game for that player, except as below. If both players have won three strokes, the score is called *deuce*; and the next stroke won by either player is scored *advantage* for that player. If the same player win the next stroke, he wins the game; if he lose the next stroke the score returns to deuce, and so on until one player wins the two strokes immediately following the score of deuce, when game is scored for that player.

23. The player who first wins six games wins the set; except as below: If both players win five games the score is called *games all*; and the next game won by either player is scored

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advantage game for that player. If the same player win the next game, he wins the set; if he lose the next game, the score returns to games all; and so on, until either player wins the two games immediately following the score of games all, when he wins the set. But the committee having charge of any tournament may in their discretion modify this rule by the omission of advantage sets.

24. The players shall change sides at the end of the first, third and every subsequent alternate game of each set and at the end of each set, unless the number of games in such set be even. It shall, however, be open to the players by mutual consent and notification to the umpire before the opening of the second game of the match to change sides instead at the end of every set until the odd and concluding set, in which they shall change sides at the end of the first, third and every subsequent alternate game of such set.

* 25. In all contests the play shall be continuous from the first service till the match be concluded; provided, however, that at the end of the third set either player is entitled to a rest, which shall not exceed seven minutes, and provided, further, that in case of an unavoidable accident, not within the control of the contestants, a cessation of play which shall not exceed two minutes may be allowed between points; but this proviso shall be strictly construed, and the privilege never granted for the purpose of allowing a player to recover his strength or wind. The referee in his discretion may at any time postpone the match on account of darkness or condition of the ground or weather. In any case of postponement, the previous score shall hold good. Where the play has

^{*} All matches in which women take part in tournaments held under the auspices of the United States National Lawn Tennis Association shall be the best two in three sets, with a rest not exceeding seven minutes after the second set.

ceased for more than an hour, the player who at the cessation thereof was in the court first chosen shall have the choice of courts on the recommencement of play. He shall stay in the court he chooses for the remainder of the set. The last two sentences of this rule do not apply when the players change every alternate game as provided by law 24.

26. If a player serve out of his turn, the umpire, as soon as the mistake is discovered, shall direct the player to serve who ought to have served. But all strokes scored before such discovery shall be counted. If a game shall have been completed before such discovery, then the service in the next alternate game shall be delivered by the player who did not serve out of his turn, and so on in regular rotation.

27. The above laws shall apply to the three-handed and four-handed games, except as follows:

THE THREE-HANDED AND FOUR-HANDED GAMES

28. For the three-handed and four-handed games the court shall be 36 feet in width; $4\frac{1}{2}$ feet inside the side lines, and parallel with them, are drawn the service side lines K M and L N. The service lines are not drawn beyond the point at which they meet the service side lines, as shown in the diagram.

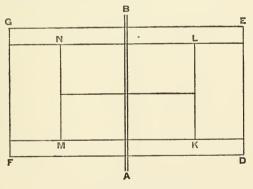
29. In the three-handed game, the single player shall serve in every alternate game.

30. In the four-handed game, the pair who have the right to serve in the first game shall decide which partner shall do so, and the opposing pair shall decide in like manner for the second game. The partner of the player who served in first game shall serve in the third, and the partner of the player who served in the second game shall serve in the fourth, and the same order shall be maintained in all the subsequent games of the set. 31. At the beginning of the next set, either partner of the pair which struck out in the last game of the last set may serve; and the same privilege is given to their opponents in second game of the new set.

32. The players shall take the service alternately throughout the game; a player cannot receive a service delivered to his partner; and the order of service and striking out once established shall not be altered, nor shall the striker-out change courts to receive the service, till the end of the set.

33. It is a fault if the ball served does not drop between the service line, half-court line, and service side line of the court, diagonally opposite to that from which it was served.

34. It is a fault if the ball served does not drop as provided in law 33, or if it touch the server's partner or anything he wears or carries.



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